

A Shilpi Speaks - 6

TEMPLES OF SPACE - SCIENCE

By

Dr. V.Ganapati Sthapati

**English version of
Tamil text**

By

Dr. S.P. Sabharathnam

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Vastu Vedic Research Foundation

B-2, Geethalaya Apts., 3rd Seaward Road,
Valmiki Nagar, Thiruvannamipur, Madras-600 041.

Phone : 044 4916563

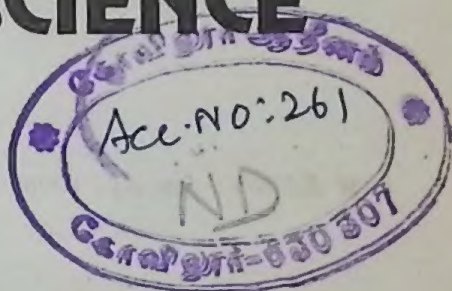


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Temples of Space-Science

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PREFACE

I wrote an article on Chidambaram Temple and Sri Rangam Temple for the Tamil literary magazine 'KALAIMAGAL' for its Deepavali number dated 1.11.94, a special issue besides its routines. The title of the article was விண்ணூர்தி கோயில்கள் meaning 'Temples of space- science'. On seeing this, my friends advised me to publish it in a book form, adding some more material flanking the main article with, introductory and conclusional messages. I did so. This book was released by Dr.V.I.Subramaniam the founder vice chancellor of Tamil University, Tanjore under the auspices of Kanyakumari Historical & cultural research centre at Nagercoil, on 29.7.95. I am also thankful to him for his encouraging review of the book on that occasion. I am glad the book enjoyed wide reading.

On seeing this book and its contents, Dr.N.Mahalingam, a reputed magnate of the domain of modern industries, and a technocrat, a good speaker, a writer and an eminent research scholar of the ancient cultures and civilizations, and a pious philanthropist advised me to translate it into English so that it may reach the hands of a wide spectrum of scholars and if not possible, he volunteered to say, that he would help me to get it done, knowing that I have been always busy with my professional rounds and activities all

over the world. I bow to him with reverential love and regards for his words of advice and direction.

The English version is now available, voluntarily brought into reality by no less a person than Dr.S.P.Sabharathnam, proficient in three scriptures - Veda, Agama and Vāstu besides his mastery over three languages - Tamil, Sanskrit and English. About his translation, I would say, that it is an actual enactment of the Tamil text in English. I express my profound gratitude to him for his services.

My friends chose Dr.S.P.Sabharathnam for the English version on one major account. He is not only a well established scholar in the Vedic, Agamic and Vāstu literature, and a doctorate degree holder in Kamikagama, he is also a practitioner hailing from the hereditary family of Sivāchāryas. His comparative knowledge of the philosophy and practice of Agamic sciences of Saivite and Vaishnavite traditions are well known. Now his critical observations on the content and message of vāstu shastras in general and about the contents of this book in particular place him at a very high pedestal of scholarly honesty.

I take this opportunity of paying my respectful regards and indebtedness to the Editor of 'Kalaimagal' without whose publishing the article on 'Temples of space-science', my understanding and interpretation of the science of space and its dynamics, as related to Vastu and Vāstu would not have

taken a visual form and elicited the attention of scholars and scientists.

My thanks are due to Dr. K.V. Raman, Professor and Head of the Department of Ancient History and Archaeology, University of Madras, for the appreciation of the science discussed and kind words of encouragement.

I express my deep sense of gratitude to the resource persons - Engineers, Architects, Artists of the contemporary tradition and sthapatis, shilpis, musicians, dancers and art-historians of ancient tradition - who are helping me and pushing me forward to do researches on the science and technology of Indian origin under the roof of the Vāstu Vedic Research Foundation, which was inaugurated in 1991 on the Vāstu-day (வாஸ்து நாள்) when Vāstu purusha rose from his yogic slumber, signifying his vibrant stillness.

Last but not the least, I am immensely indebted to Engineer. Sri.V.Ramamoorthy who by critical dialogues and discussions improved the presentation of the contents of the book. He is the Executive Director of the Vāstu Vedic Research Foundation, having gathered abundant knowledge of the technology of Vāstu and the underlying science of space and spatial consciousness - the primal substance of the universe. Over the years of his association with me, as my boss, in the Directorate of Technical Education, under whose official guidance I functioned as the principal of the Government college of Architecture and Sculpture at Mamallapuram, he

has also presented papers on Vāstu science and technology as experienced by him. The latest one, well structured and eloquently presented was at the Second Congress on Traditional Sciences and Technologies of India organised by Anna University and P.P.S.T. Foundation, Madras in December 1995. The forward to this book bespeaks of his deep knowledge and understanding of the vāstu science and technology. I thank him for his involvement and encouragement.

I will be branded ungrateful, if I do not mention the name of Srimati Rajalakshmi Ramanarayanan, proprietor of Sriram Softwares, Madras who did computer type setting, proof reading, printing and giving also a good look to the entire product. Her sincere co-operation coupled with high sense of professional etiquette, touched me very much. I am profoundly grateful to her services.

My affectionate words also go to my daughter-in-law Srimati. Ponni Selvanathan, who is also my private secretary in all my professional and research activities. She is a budding researcher in the science and technology of Vāstu, which knowledge she has been able to acquire on her discussion with me while dictating notes to her either in English or in Tamil and get them typed for computer typesetting.

A word to my distinguished readers and patrons. I do this kind of research work and writing work in the midst of

my professional activities as a designer and builder. I am not at all a professional writer to boast of and earn my livelihood out of writings. My work gives me food and I am satisfied. My savings that result out of professional occupations are diverted for works of research nature. All my anxiety is that the science and technology of Indian origin having remained so far community- based, should spread world-wide and come up for universal application so that those 'humble people' the holders of knowledge and wisdom of this tradition, still holding them on to their bosom as sacred and noble, against centuries of slavery and segregation, may also rise up again and join the main stream of national life and development, with renewed social recognition and added dignity and respect. Hence this book is dedicated to the sthapatis (Perunthatchans) and shilpis of the past and the present.

May the Brahma rishi Mayan, the progenitor of this Vāstu Science and technology, bless the tradition, patrons of this tradition and practitioners of this tradition.

May the Lord of the Microbode (சுற்றம்பலம்) bring the Indian community emotionally bonded and united under the banner of the scientific culture of Indian origin for all generations to come.

— Dr. V. Ganapati Sthapati

TEMPLES OF SPACE-SCIENCE

DEDICATION

To those shilpins who shared their spiritual and aesthetical experiences with the society, through their technological expertise and hard labour, with the sole aim of bringing spiritual wellbeing, physical welfare, material prosperity, peace and bliss to their doors and thereby preserving and maintaining the unique science and technology of Vāstu, over the centuries, against odds and set backs, is this book dedicated.

Also this book is dedicated to kings of the past, Saints of the present and past, Rajas of Chettinad, Ministers of today and yesterday for their official patronage and promotion of the time-honoured scientific culture of India.

— **Dr. V. Ganapati Sthapati**

A NOTE BY THE TRANSLATOR

It was in the year 1973, that my first visit to Chidambaram took place. It was a turning point in my life because, even at the very first visit, the abounding grace of Lord Nataraja directed me to stand before, Acharyavarya, Sri Rajaganesa Dīkshitar, who was to become my spiritual master, Dīkshā Guru. Three months later, I made my first visit for the second time. My Guru was immeasurably kind in initiating me into various spiritual disciplines and mantras, significantly related to Chidambaram. One year later, I made my first visit to Chidambaram for the third time. The finest and fortunate part of this visit was that I was able to receive some of the rarest works and manuals dealing with Chidambaram from the compassionate hands of my Guru and was able to procure many rare works and scriptures from a family known to my Guru. These scriptures, works and manuals include - Patanjali pūja Grantha, Chidambara tattva nirnaya. Chidambara Dahara Vidya Kānda. Sabhā pravesa Vaibhava, Chidambara Sabhā yoga - Kuncitānghri Stava and Natesa dandaka.

Many a time I had made my first visit. I mean it. Each time I went there, I was rewarded with edifying new visions, new experiences, new forms and new features - all closely associated with Chidambaram. My Guru's instructions,

scriptures and these experiences revealed to me a wealth of truths and concepts related to space-science and spiritual science. An unfailing attitude (bhāva) of oneness or total identity with Chidambaram developed in me and this makes me feel that Chidambaram is nearer to me than my own heart. I reverentially remember my parents who gave me my name - Sabharatnam - which is one of the significant names of Lord Nataraja. For this reason, I did not want to change my name, even though it is very often mis-spelt, mispronounced and mutilated mercilessly even by the scholars. I am known to many foreign scholars only as Sabarinathan or more simply as Sabhā. (Once I was interrogated by a police officer, who was under the wrong impression that I had come from Srilanka. In Srilanka, this name is very common).

The reason for writing all these details is to inform my spiritual association with Chidambaram, which vibrant association made me accept without any hesitance or reservation, the principles on space-science, Chidamabaram and Srirangam, laid down by our Sthapati based on Vāstu texts and on his own traditional experiences. I have closely observed the ritualistic proceedings of Chidambaram and have closely studied the Patanjali Pūjā Grantha and other works mentioned above. Based on these observations and studies, I become, enthralled to say that this book Temples

of space-science', is a rare and unique work of its own kind, the writing of which could be possible only to Dr.V.Ganapati Sthapati whose spirit is in total identity with the original Architect and Builder of Chidambaram temple. For more details and observations about this book, I refer the reader to the appendix of this book.

When I was going through this book, for the first time, simultaneously I felt that our Sthapati should have written this book only in English, since it is a bitter truth that Tamil scholars are not receptive to the genuine and justifiable views and truths related to ancient Tamil works, ancient architecture, sculpture and so forth. Many scholars who studied this book felt the same notion, among whom Dr.N.Mahalingam, the well known Industrialist, and scholar, who is making effective efforts to revive the Grantha - script, is to be mentioned with deep sense of gratitude. It was he who inspired to launch on the scheme of translating this book into English.

Our Sthapati's statements embodied in this book are the direct expressions of his heart, or inner space, so to say. As such they have not undergone any modification in style and form. They are the direct and actual expressions, being conscious-bound and spirit-bound. So the exact spirit of his statements could not be brought out in translation, however much we may try. To the extent possible, I have brought the subject matter to the notice of the readers. But I cannot claim

that I have done justification in presenting the actual spirit of the author.

My extensive experience in the field of translation makes me feel that the translation of Tamil work is more difficult than the translation of Sanskrit work. Because it is an irrefutable truth that Tamil is the language of spirit, emotion and devotion. No other language could emulate or simulate it. It has its own mellifluous pattern of expression, not yielding to simple translation.

I have kept the subject matter of the book in tact while rendering the translation. Nothing has been reduced or added. There are two possibilities in rendering a translation.

1. To maintain the subject matter at the expense of simplicity of the language.
2. To maintain the simplicity of language at the expense of the subject matter.

Always I prefer the first. For simplicity, the readers may go for other works. But, for the rare precious and worthwhile subject matter, where can they go? I don't want to get it concealed under the garb of simplicity.

As my experience with Chidambaram, I did many 'first reading' of the Tamil work விண்ணானக் கோயில்கள் while I was translating it. It was a rewarding experience for me.

This translation, at the most, could serve as an introducing agency for the author's original work in Tamil.

I record my reverential regards and sincere thanks to Dr.V.Ganapati Sthapati, who, with a great confidence and good hope, entrusted the scheme of translating his Tamil work to me.

I request the readers to ignore the shortcomings of the translation and to move intimately with the central theme and core of the book.

— **Dr. S. P. Sabharathnam**

SUPPORTIVE MATERIAL ON SPACE-SCIENCE

(விண்ணுரை)

(Bibliographical references)

In this book, titled "Temples of space-science" all the exponential statements on traditional science are quoted from various Scriptures and Vāstu Sāstras and from the Mayonic works that are essentially concerned with space-science. They come under the caption 'supportive material on science' in an abridged way. I have given below some of these statements. They are indeed bibliographical references.

Having deeply ruminated over these statements and understood their exact import against the background of Vāstu technology, I have set forth in this book plausible expositions and explanations on them.

There are numerous concepts of space-science that tally with my traditional experience and which are in total agreement with the technology of Vāstu. But, to be in tune with the selected theme, I have embodied here only certain themes and concepts related to the subject proper.

To bring out the quintessence of these statements, it could be framed as follows: "The effulgent space itself is the store-house of energy, and it is the originating source of all the objects of universe" — this is the statement on the nature

of space. "Space itself turns into earth" — this is the statement indicating the subtlety of non-dual phenomenon. "Space-substance (விண்மொருள்) itself turns into two streams of material form — aural forms and visible forms" — this is the statement on the secret of space-science.

Incidentally I have made it clear in this book that both Tamil and Sanskrit are endowed with the eternal truths about space. I have made use of English terms that are congruous with the technical terms of Vāstu tradition for the benefit of the contemporary students of space-science.

The age old scientific concepts that have originated in time immemorial, that have undergone intermediate set backs and that have sustained inevitable changes during the historic period, should attain new life and vitality. Revivification of Vāstu science is the immediate need of today. This is my aim which I have indicated in this book.

The efficacy of bringing all the races of humanity existing throughout the world and unifying them under one roof, solely belongs to science. This unification could be possible for science only. It is my incumbent duty to declare that the foremost aim of Vāstu science is to render effective services in such a way as to bring this supreme science to the experiential field of humanity and enable the people to gain physical and spiritual welfare, bliss and peace and to make them experience the bliss par - excellence, not

somewhere in the unseen world, but here, in this very world itself. This aim of Vāstu science is indicated by the following extracts, related to space science.

Mayamatha Vastu shāstram

प्रासादादीनि वास्तूनि वस्तुत्वात् वस्तुसंश्रयात् ।
वस्तून्येव हि तान्येव प्रोक्तान्यस्मिन् पुरातनैः ॥
वस्तुरेव वास्तु ।

परमाणुरिति प्रोक्तं योगिणां दृषिगोचरम्
परमाणु क्रमाद् वृद्धं मानाङ्गुलिमिति स्मृतम्
सर्वात्मीयं लिंगं आकाशमेव
नागरं शात्विकं प्रोक्तं
राजसं द्राविडं भवेत्
वेसरं तामसमित्युक्तम्

Mānasāra Vāstu shāstram

विमानादीनि वास्तूनि वस्तुतः वस्तुसंश्रयात् ।
तान्येव वस्तुरेवेति कथितं वस्तुविद्वद्भिः ॥

Shilpa ratnam

प्रासादं पुरुषं मत्वा पूजयेत् मन्त्रवित्तमः ।

Vedic and Upanishadaic vākyaās

सर्वं खल्विदं ब्रह्म, तत्त्वमसि, अहं ब्रह्मास्मि
रसो वै सः, सो वै रसिकः

द्वे ब्रह्मणी वेदितव्ये शब्दब्रह्म परंचयत् ।
शब्द ब्रह्मणि निष्णातः परं ब्रह्माधिगच्छति ॥

अणोरणीयान् महतो महीयान्
तमसो मा ज्योतिर्गमय
नतत्रसूर्यो भाति नचन्द्रतारकं ।
नेमे विद्बुतो भान्ति कुतोयमग्निः ॥
तमेव भान्तं अनुभाति सर्वं ।
तस्य भासा सर्वमिदं विभाति ॥

Maya sūtras

भूमिः प्रधान वस्तु स्यात्
स्थपतिः सर्वशास्त्रज्ञः वेदविच्छास्त्रपारगः

காலமே	எவைக்கும்	மூலம்	காலமே	மூல	ஆற்றல்
காலமே	கோலத்	தோற்றம்	காலமே	ஞாலத்	தோற்றம்
காலமே	விந்தை	செய்யும்	காலமே	நுணுக்க	மாயும்
காலமே	அணுக்கள்	ஆயும்	காலத்தின்	ஆற்றல்	என்னே!

Srimat Skāndam

कालः सृजति भूतानि कालः समहरति प्रजाः
सर्वे कालस्य वशकाः सकालो तस्य वशे स्थिताः

Shilpa Vidya rahasyopanishad

जगत् सर्वं शिल्पमेव भवति , शिल्पात् प्रतिमाः जायन्ते

As prevalent among practitioners

கவிஞன் பாட்டை கட்டுகிறான்; கலைஞன் வீட்டைக் கட்டுகிறான்
வீடு ஓர் உயிர்ப் பொருள்: வீடு ஓர் இசைவடிவம்.

FOREWORD

When Dr. V. Ganapati Sthapati asked me to write a foreword to the book titled 'Temples of Space-science' I agreed to do so. Doubt may arise in the minds of readers as to my fitness for writing such a foreword and so I feel that it is my first duty to dissipate that doubt. I am neither a shilpin nor a person hailing from the tradition of Vāstu. Basically I am a civil engineer accustomed to the modern trend of building technology. Therefore, at this stage, I feel a compulsion to state about myself and about the favourable channels and chances availed to me for maintaining a close contact with the tradition of Vāstu and with the persons hailing from that tradition. At the outset I am to state, as a preamble about the deep intimacy between our Sthapati, his Vāstu science and myself.

I am a civil engineer, educated and trained in modern system of technical education. Having been trained in the science and technology that has been flourishing in the west I have executed many building works, projects, gaining experiential knowledge in building technology. Thereafter I have been in a responsible post in the Directorate of

Technical Education, Government of Tamilnadu for more than 25 years holding the portfolio of planning and development. During that period, I had a direct contact with 25 Engineering Colleges, more than 120 polytechnics and 8 special institution. By this, I was able to gain a wider experience in the field of modern science and technology.

The Government College of Architecture and Sculpture, Mamallapuram, which was functioning under the Department of Industries and Commerce was brought to be under the care of the Department of Technical Education by the Government of Tamilnadu in view of its advanced studies and development. Because of this shift, I had the privilege of having a close contact with and involvement in the various projects for development and growth of the Mamallapuram college for 15 years from 1973 to 1988, the year of my retirement. It was only at this time, in the year 1973, a close contact and friendship between Dr. Ganapati Sthapati and myself emerged. After both of us got retired from the government service I have been moving and working with Dr. Sthapati; I had the privilege of having a close watch over his research activities and his discussions with scholars. Through this intimacy

I was able to know to certain extent about the subtle and scientific truths of the tradition of Vāstu and its technical realities. With this background, I want to share my thoughts with the scholars. As a person, endowed with naturally evolved interest in music and engineering I got myself deeply involved, without any effort on my part, in the fields related to the tradition of Vāstu. The basic reason for all this is my understanding that both the grammar of music and that of Vāstu always go parallel and identical.

There were many academicians such as Dr.P.Sivalingam who has been formerly the Director of Technical Education, and then the Vice-Chancellor, Anna University, Dr.V.C.Kulandaiswamy, the former vice-chancellor of Anna University, Thiru. S. Vaiyapuri and V. Srinivasan the former Directors of Technical Education - who evinced great interest in upgrading this college at Mamallapuram and in giving an afflatus and upliftment to the Vāstu tradition. During the time when I was working with these great personages, my contact with the tradition of Vāstu by virtue of my professional association, gradually flowered into a pleasing intimacy. All the time when I used to go over to the Mamallapuram college for which Ganapati Sthapati was the Principal

and when he used to come over to my office in connection with the college affairs, I had poured volley of introspective questions over him, driven by my enthusiastic attitude and inclination towards the field of music and vāstu. Many a time I had elicited plausible explanations from him. Without any reservation or restraint on his part, our Sthapati had given so many elucidations and scriptural supports thereof. Why all these temples and images? What are the principles behind them? By whom? What is the basic measure and technology for these? On the basis of which feelings they have been created? How? — for all such questions he gave relevant answers and explanations by which I was able to clear my doubts concerned with Vāstu. His explanations and elucidations further increased my interest in the science of Vāstu and attracted many officials and employees in my department who began to revere him and his college. With the result, we introduced many effective schemes and projects in that college and restructured the syllabus. When he insisted that music and dance should also be included in the curriculum and offered valid reason for that, we readily agreed to his scheme. Likewise, subjects of modern engineering, modern mathematics, agamas

and philosophy were gradually included in the curriculum. These interactions voluntarily created an academic environment which helped me considerably in knowing the vitality of the tradition of Vāstu and the shilpins. This, I would say, was a rare and golden chance extended to me, a chance not to be available for others. This rare chance was not for one or two days, it was the chance that ushered in for me a great intimacy with Sthapati, for more than 20 years. Had this deep intimacy occurred to a literary person or a poet, certainly he would have authored many interesting works of poetic charm on the principles of Vāstu.

Even after his retirement, Ganapati Sthapati continued his researches on Vāstu. I was able to have direct participation in his research activities. I had the privilege of discernfully listening to his talks delivered in and to the papers presented in various seminars and conferences and to his penetrating discussions and exchange of thoughts with the scientists, archaeologists, engineers, architects, linguists and so forth.

In some of these meetings, I also had shared my thoughts with the scholars.

The knowledge of music and musicology inherent in me was greatly helpful in understanding the science and technology of Vāstu. I realised that the same blissful experience which we derive by hearing melodious music based on grammar of rhythm and scale, could be gained by seeing the wonderful creations rendered by the Vāstu tradition. These creations are, in reality, the visible musical forms. Many a time I had enjoyed by directly seeing our Sthapati's working styles and patterns. Keeping the mathematical order set forth in the texts of Vāstu in his own inner feelings, he used to express them in various forms through dots and lines. Many a time I had watched him doing this imagic-magic and wonders.

Once again I want to ascertain more emphatically that this great chance of directly watching the workings of Sthapati, could have occurred to nobody else. Only by this rare chance one could be able to observe the subtle points of application and enjoy the practical way of application. Not only this. I have understood the wondrous nature of Vāstu by observing how the mathematical orders or scales are transformed into tridimensional forms - buildings and sculptures and

by observing the technical skill and patterns employed in such transformations. I have wondered at the technical skill and dexterity by which the shilpins, having limited within a grammatical frame the divine forms that are not cogniscible even to the steadfast devotees, create images through very simple means. I recognised that the Vāstu tradition is a wonderful tradition which has formulated form to the formless. This tradition is not so simple as to consider it ordinary or insignificant. Nor the shilpins who belong to this tradition are simple labourers. Of course, they are poor. But they are not impoverished in their wonderful skill which is absolutely traditional. In short, it occurs to me say that the shilpins seem to be incomprehensible riddles. I have become a knower at least to certain extent, of this supreme tradition which is endowed with science and technology capable of creating wonderful structures and sculptures.

It was only when our Sthapati was working with us, his college being under the Directorate of Technical Education, that the Government, after recognising his commendable contributions, ordered him to undertake the constructional works of various halls and mantapas at Pumpuhar according to the

principles of the Vāstu tradition. It was only when the government examined how this Sthapati, whose tradition is concerned more with the construction of temples and sculptures than with civic buildings, introduces and employs the principles of Vāstu in building technology, that it was able to realise the relevance and validity of the extensive Vāstu principles. Having realised their relevancy for the contemporary context also the Government commissioned him to construct a wonderful memorial building for the Poet Thiruvalluvar — Valluvar Kottam in Madras. During this time more affinity and regard for this tradition got rooted in the minds of the authorities of the Government and the Directorate of Technical Education.

When the question arose in our minds as to whether this tradition had the capacity of constructing the buildings according to the modern needs, Dr.V.I.Subramaniam, the then vice-chancellor of Tamil University, Tanjore, asked our Sthapati to construct the buildings that were immediately necessary for the university activities, according to the tradition of Vāstu, preserving the spirit of Tamil culture. The plans submitted by our Sthapati were analysed carefully and appreciated both by Thiru.

V.Srinivasan, (Director of Technical Education) and myself and we made it possible for Ganapati Sthapati to have the opportunity of constructing the university buildings. Through his wonderful construction of one circularly designed library building and captivating administrative building for the Tamil University, our Sthapati demonstrated visually the ever-relevant and undiminishing efficacy of the Vāstu tradition. To the question as to whether, this tradition could fulfil the needs of modern times, these buildings shine forth as the constructive and concrete answers. Having seen directly the technological skill and mathematical manipulation employed by our Sthapati I am detailing all these to share my firm certitude over the efficacy of Vāstu tradition with you. I convincingly realise that this tradition is not only beyond the limits of immemorial time but also spearheading the innovative modern trends.

Only against this background, I wish to state with all humility, that I ventured to write this foreword for this book "Temples of space-science". Even at the very outset, I want to make our readers ruminate over, by placing before them one important point.

The scholars, conversant with language and literature go through the Vāstu Sāstras and translate them based on the knowledge of language only. The subject matter dealt within the Vāstu Sāstras is beyond the scope of language-knowledge and skill. As such, they even claim that they are experts in the Vāstu Sāstras. This, I could not digest. They talk only about the religiosity of the Vāstu Scripts. No one talks about their significant nature, science and technology, their principles, art and such other matters. Having a false notion that the Vāstu texts are religion - based, most of the researchers discard and disregard them. If at all Vāstu texts speak of religion, they are unable to say of which religion they speak. It is not known whether any linguist or literary person has carefully studied the scientific chapter on 'pada vinyāsa' occurring in the Vāstu Sāstras. Neither their translations nor their explanations reflect their understanding of the original texts. Their writings on Vāstu do not seem to have been written by understanding how the images, temples and other buildings, created according to Vāstu, have become worthy of adoration and worship. These translations do not reflect their understanding of the basic concepts and they remain

simply as literal and dry translation. I could say that these present only refuses, not the juicy essence. The reason for such poor quality of translation is that the Vāstu Sāstras is related to the science of 'energy' which is beyond the quest and reach of physical science. I have heard many persons indirectly say that the spirit of the tradition is somewhere else and only the action prevails in Viswakarmas. This is absolutely contradictory to the actual. The Vāstu text, being beyond the limit of lingual knowledge, provides rules and regulations and applicable mathematical calculations through a systematic grammar, touching upon the transcendent and subtle existence. Further, they bring those supreme levels of field, down to our mundane world, transform them into visible forms for the beneficence of humanity. As very often stated by our Sthapati, I realise that just like, there is vedic trend related to 'sabda brahman' there is also Vāstu-vedic trend related to 'artha brahman'. Nobody has so far seen the significance of Vāstu tradition from such a perspective.

Those scholars who want to translate the Vāstu texts should train themselves along traditional lines. Being closely associated with a working shilpin and

keenly observing his working patterns, taking part in his feelings and experiences, knowing the basic aspects of his creative functions and his expressive faculty by which he materialises his spiritual experiences into tangible forms, a genuine researcher should proceed to study the works on Vāstu. Unless he is trained in this way, his translation of the Vāstu text would not yield its intended purposes. His work would be futile. The Vāstu texts which I see are the very difficult texts, embodying the principles which directly take us into action field; they are the texts which enshrine various scales and measurements, without any illustrative diagram or explanation as we normally see in the books on modern engineering. The translations, which have appeared so far on Vāstu, be they in English or in Tamil, do not seem relevant or purposeful. Once again I want to state that none of the translations has touched upon the subtle aspect and wondrous feature of the Vāstu texts, in which the inner consciousness of the shilpin gets translated into numerical measures and designs.

With regard to research works on shilpa also, I see irrelevancy and inconsistency in them. They repeatedly speak of the kings and queens, limit the tradition of Vāstu within the historic time, and encase

this tradition, whose time of origination is still unknown and which has grown rooted in every direction, within various time-strata without any basis and create an illusion about the tradition of Vāstu. Nobody has taken enough care to highlight the antiquity, efficacy, and uniqueness of this tradition. To make known these, it seems to me, as has very often been stated by our Sthapati, a sense of belonging to our Nation, cultural affinity, impartial outlook and an open mind free from racial and spatial distinctions are very much essential.

As for the other works, they simply provide an illusory appearance, presenting irrational stories under the pretext of art and science to such an extent as to make us think that Vāstu tradition is of such nature.

For all these reasons, I think, that those who read these mistranslations get confused and become despondent and ultimately discard the original Vāstu texts. The researchers and translators explain even the very intricate passages as if they had understood them and misdirect the common people. Those who write in this way, do commit a serious harm to the scientific tradition of Vāstu. Do you realise how

these works of the flippant writers have disfigured this tradition? We have to put an end to such sort of writings. I wish that Sthapati and other shilpins should join together and start an art-movement to nullify these harms.

What I feel at this stage of affairs is that the shilpins themselves should come forward to translate and explain the Vāstu texts. Instead of giving a literal translation, they should explain their wonderful creative process of giving form to the formless inner consciousness and clarify the doubt that have occurred in the minds of common people. If this is not done even by the shilpins then there is no hope for a better future of this tradition. If they do not do this, the contemporary society would give a further setback to this tradition, thinking that the shilpins are mere labourers, and craftsmen, always engaged in repeated actions. They would be deemed to have committed a crime of splitting a great tradition which remained so far as a single unit, integrating inner consciousness, knowledge and creative efficacy. The history will not excuse such a crime committed by them. Therefore, at this stage and against this background, I whole heartedly welcome our Sthapati's present work "Temples of

space-science". I welcome this book with a rejoicing heart, having seen in the writings of Sthapati, the confluence of scientific truths unheard so far, artistic subtleties, ancient themes, historical facts, roots of our civilisation, technical skill and spiritual experience of the shilpins.

I have randomly gone through the Vāstu texts got from our Sthapati. Most of the pages contain numbers, scales, rules, principles and so forth. A particular text even goes by the name 'Mānasāra', so as to mean also the quintessence of scales. They are not easily understandable. By studying textually, nobody could draw even a single line. All the numbers recorded in these texts are verily the forms only. A wonderful process of creating forms out of numbers is set forth in these texts. In these numbers contain the ideations and feelings of the shilpins. Those who possess the knowledge of language alone cannot comprehend, experience and translate these ideations and feeling identical with the very spirit of the shilpins. The vāstu sastras hold with them a basic cosmic truth, a primal substance and having known the essential nature and functional way of that substance, they formulate certain numerical orders. Keeping the words themselves as living entities, these



are capable of creating qualitative forms corresponding to the visible objects of the world.

I understood that rendering visible form to the one which is of nature of consciousness is not so easy as rendering it in aural form. In other words, creation of word-form is easier than that of concrete form. It is indeed a supreme 'brahma vidya' to circumscribe the one which is formless and invisible within numerical scales, to infuse beauty and to render it as beautiful images and structures. How these divine images have attracted so many saints and devotees? How they have inspired them to outpour so many hymns? However much we may speak on music and its grammar, themes and features unless the songs are rendered audibly, the corresponding musical visions do not become comprehensible. Even the Vāstu tradition is like this music. I became an ardent admirer of this tradition, once I understood that this tradition is akin to music.

When I am writing this from the stand point explained above, a wonderful book, "சிற்பச் செந்நூல்", written by Dr.V.Ganapati Sthapati, in the year 1977, comes to my memory and I wish to state that in my estimation, this book occupies the supreme place.

This book was published by the Department of Technical Education, Government of Tamilnadu. It was not a translation of any Vāstu text. I could say that it was a systematic research work on measurements and scales, on forms and images, depicting the inner feelings and consciousness of the Shilpins and their tradition. I understand that this book has opened the eyes of many research scholars. I am bound to state that all those images that do not have the creative and ensouling touch of a traditional shilpin and all those works and translations which do not have the direct vision or guidance of the traditional shilpins are effectless, insipid and spiritless productions. There is no use in concealing or suppressing this fact and cheating ourselves. Only on this basis of a shilpin's direct involvement, I welcome this book under my review, by saying that this is indeed a great work, even though it is small in size.

The scientific message revealed by our Sthapati in this book, that the form of Vishnu is the mirror image of Nataraja, itself would suffice to measure the actual volumetric potency of this book. How beautifully our Sthapati has drawn a linking line between Siva and Vishnu and equalised these two

symbolic images that have so far been viewed from two different religious standpoints. I want to point out one more important message that enhances the vitality of this book. Our Sthapati states that Time is nothing but the vibration of inner space and Time itself turns into universe (ஞாலம்), and the universe turns into worldly objects and forms. Having shown the relationship between Time and the universe, he equalise Time with Space. Is this not a wonder? By setting forth yet another cerebral theme, Sthapati has made me lose myself. He equates musical vibration and individual vibration and measures the spiritual vibration by means of musical vibration. He establishes that only the spiritual vibration is manifested as a universal vibration and says that the universal Temple is that place where musical vibration, individual vibration and universal vibration are harmonised and integrated. He ascertains that such universal temple become a unique and matchless place where all the people would congregate and worship being free from all distinctions. According to him, the Vāstu technology transforms all the material objects in such a way as to be in the form of frozen music.

At this juncture, I want to reveal one more point about our Sthapati, Whenever he speaks, or writes or holds discussions with scholars, he seems to be struggling hard to express or to pour out something he is holding within his heart for a long time. It is this 'some truth' kept in his heart, always ready to manifest out, that gives rise to his speeches, writing, deliberations and discussions I want to hint at this truth, as I have understood.

It seems to me that our Sthapati feels a heavy thrust of doubt and fear, as to whether this prestigious tradition of Vāstu would be rejected or discarded further by the people who peripherally look at it and misconstrue that Vāstu tradition is sectarian and religion-based. He has got reasonable fear such as, whether this tradition is awaiting the danger of extinction. He seems to have been affected very much by the unwarranted criticism made by those who are much disturbed by religious conflicts and who are abhorrent for religions. To erase and obviate these baseless notions that have mushroomed in the minds of the people he is explaining the real and relevant values of this tradition through his speeches and writings and his participations in public forums and conferences. I could see in this book, his

convulsive heart revealing the present plight of the tradition. What he wants to establish is that even though the temples and the sculptures associated with them in and out are meant for worship, they were not related to religious sects. This was the condition in olden days. They have not been created by the tradition of Vāstu so as to appear with religious coverings. This point he ascertains through his deep analysis and knowledge. According to him, the tradition of Vāstu had created them so as to be universal forms and universal Temples to be worshipped by all people, irrespective of their religious identity. He affirms that to create them in such a way is the fundamental motive and approach of the tradition of Vāstu. He is of the view that the Vāstu Sāstras speak about edifices and images not as the imaginary structures and forms symbolising the cosmic principle but as the actual manifestation of saguna brahman, conforming to the numerical measures formulated and designed to reflect the exact features of the Primal substance speaks, supported by numerical calculations and authentic proofs, that these temples are not only beautiful edifices but also the structural patterns of the orderly universe, worthy of reverence and worship.

It was at the time when so many claims and appreciations of form, images and structures created by the tradition of Vāstu, were made from the stand point of personal and religious affinity, religious conflicts and religious favouratism emerged in large scale. All those concrete forms and structures established according to Vāstu are common to all those who have born in this world. Just as everybody can go to a musical concert and experience musical bliss, even so everybody can go to any edifice created by this Vāstu and derive spiritual and divine bliss - These are the views expressed by our Sthapati in this book. He holds that religious consciousness should basically be a unitive force capable of unifying the whole human community. Vāstu tradition was such a unitive force and it has never been sectarian. To maintain this point, our Sthapati had spoken many times in the seminars, referring to the supreme place accorded to Buddhism and Jainism in the Vāstu sastras.

He wants to establish the perennial truth that science itself should operate as religion and religious experience, Therefore, in all his speeches and writings he makes it clear that all those temples built according to Vāstu are basically non- sectarian

scientific temples. This truth should be calmly observed and understood by all. If this is understood, there is no room for religious conflict. Only on this firm basis. Our Sthapati has taken for discussion two great and ancient temples - Chidambaram and Srirangam - and the divine and supreme Images enshrined in them. He explains this theme, keeping himself with the spirit of the tradition through simple and charming words. He has indirectly pointed out in this book how the extreme religious affinity has concealed and shrouded the scientific radiance of these temples. I whole heartedly welcome his healthy approach to this problem, without harming any religious devotee.

Bhakti - is a scientific and conscious phenomenon that occurs between a devoted person and the supreme Brahman. Temples and images are of the nature of inducing such an occurrence. Only enkindled by such phenomenon, Alwars, Nayanmars, St. Thyāgaraja and other enlightened persons mellifluously outpoured hymns and songs on god. Devotion should blossom forth through music and temples and images have helped in great measure for such blossoming. At the time when bhakti cult was in full swing, a concept-that 'anybody could worship

any deity according to his choice - arose and gained momentum and consequently varied rituals, varied religious beliefs, varied directions, varied festivals and so forth came into existence. Since all these were related to the temples and images, Vāstu tradition which created these was voluntarily dragged into religious fold and subsequently it suffered setbacks, degradation, marginalisation and suppression. Our Sthapati analyses all these factors with a complete understanding and care.

Both the Vedas and the Agamas provide extensive principles and systematic explanations on the nature of supreme Brahman. Even though our Sthapati has good regard for these Divine Scriptures, he painfully feels that the truth that all the temples created by the tradition of Vāstu are indeed the temples of space- science had suffered devaluation and degradation owing to the impact of the religiousness of these scriptures. He gives a clarion call to the scholars to establish the truth that the Vāstu and Āgama are the two streams of experience and expression by closely analysing the functional modes expressed in them.

Some scholars are of the view that the images of gods are mere symbols, bereft of any significance. Our Sthapati does not accept this view on. He takes pity on them, saying that they are not able to understand the grammar and significance of Images, even after it has grammar and significance of Images. Even after it has undoubtedly been proclaimed by Vaishnavism that the images (pratimas) are considered to be 'arcāvatāra' (manifestation meant for reverential worship), why does this sort of short-sightedness prevail? - he asks. He ascertains in this book that the images, sculptured by the traditional shilpins, are, verily the forms of god. He provides numerical measures pertaining to these images and demonstrates that god himself manifests as the numerical measure. The tradition of Vāstu holds that the existence of god is numerical existence. At this stage, our Sthapati expects every reader to be cautious and open-minded in understanding this point and offering their comments.

To show that all these images are the forms of god, our Sthapati brings out a mathematical order. In so many pages of this book, he sets forth with much emphasis that this mathematical order is exactly the rhythmic order of measure that serves as the basis

for the cosmic emergence. Objects cannot be created without the application of proper mathematical order. Even God, being in the form of that mathematical order, manifests himself as innumerable forms and objects through rhythmic modifications of this mathematical order. Our Sthapati states that if these forms and images were different from god and his mathematical order, then all the rituals and sacred activities related to them would become meaningless and futile.

Even though there are religious beliefs and forms related to them on one side, we could see that the tradition of Vastu transcends these religious forms. The same Vastu tradition is capable of constructing villages, towns, cities, houses and dwellings, palaces and halls, etc, through the application of same mathematical order and strictly based on scales and proportions. Our Sthapati explains here that all these creations, effected by the tradition of Vastu are, in reality, the pulsating living organisms. I wish to state here that we ourselves can realise this truth through the systematic, even-phased and deep study of this text.

Our Sthapati has strewn over in this book so many themes and concepts, unheard and unknown so far. He has effectively established that the tradition of Vāstu has already rendered so many constructions and innovative creations comparable to the wonderful creations of modern science and technology. In many cases, they have excelled the creations of modern trend. As such, he says, that the science and technology of Vāstu surpasses modern physical sciences and by employing scientific concepts that are relevant to all time, it is capable of creating living organic and conscious structures. With a scientific and technological outlook, our sthpati has explained such important concepts. He makes them understandable and acceptable by us, who are accustomed to modern scientific knowledge.

Even though his views seem to be plausible and acceptable, when looked from my own stand point I wish to offer this suggestion to our Sthapati that he should write separate books on these themes, penetrating more deeply into them, and place his writings before the public. I wish that even other shilpins of this tradition may follow his suit.

As far as I have heard and seen, our Sthapati's researches, analytical ideas and views receive good response from the scholars of India and Abroad. I hope the readers of this text would also be inspired to have the same receptive mind. If this happens, then there is no other thing that would make him feel so happy.

There is one more point that our Sthapati is keeping at the bottom of his heart and we could see him revealing something about it here and there. The progenitor of the tradition of Vāstu, to which our Sthapati belongs, was known as Mayan. He was South Indian by birth. Sthapati finds that it is only Mayan-Science and his science-based civilisation that had rooted in various countries, and spread under various names.

By seeing side by side the literary works of India and the historical facts of foreign lands he becomes inclined to feel whether the Indian civilisation itself could be of Mayonic order. When he feels like this, a feeling of like-nature occurs even to us. Since I am also an Engineer by profession and since the tradition of Vāstu is also, in many a way, characterised with engineering skill, I am not

reluctant to accept his way of thinking and his views. Whenever he explains all these matters, my own knowledge and experience get totally identified with his expositions. When he speaks about Mayan, we could feel that the diagrammatic illustrations given by him leading us to an entirely different world.

One more important view is very often expressed by our Sthapati. We have heard of Mayan of India and Māyan of Mexico through scanty references in journals and other works. Our Sthapati copiously provides compatible explanations and reasons to establish the identity of Mayan and Māyan, having directly seen so many similarities in their scientific concepts and scientific creations. For him, Mayan and Māyan are one and the same person who lived in India and Abroad. When we take notice of this fact, it seems that the history not only of India but also of the Western Countries has not been written properly. It specifically appears to state that Indian history should be re-written starting from South India and the history of Western countries should be written starting from Mexico. Sthapati also has framed such an idea in his mind and his writings indicate this.

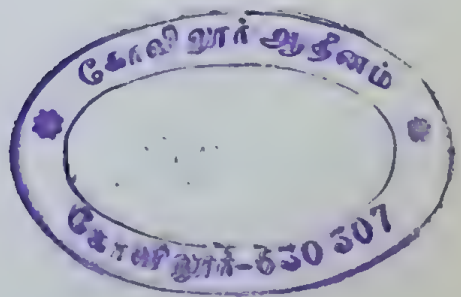
Keeping upto the brim of his heart yet another scientific view, our Sthapati explains it with a sense of pride and prestige. Out of the two great temples of Tamilnadu, as has been explained by Sthapati, Chidambaram is Vastu and Srirangam is Vāstu. He compares these temples with Einstein's equation $E=mc^2$. He equates Chidambaram, Vastu, with E (subtle energy) and Srirangam, Vāstu, with mc^2 (gross energy). How did he arrive at this identity is a great wonder! For having established such an identity of equation, acceptable even to the modern minds rooted in science, I congratulate him with fullness of heart. When we see the efficacy of the tradition of Vāstu, which, even before thousands of years, enunciated the most scientific principle 'Vastureva Vāstu (meaning, Vastu itself becomes Vāstu) we spontaneously become inclined to marvel at it. I propitiate Vastu in order that our sthapati's research activities on Vāstu may flourish more and more.

Before I conclude my foreword, I want to offer one more suggestion to our Sthapati. I know that the Bruhadiswara Temple at Tanjore and the temple of Gangaikonda-Choliswaram are the two wonderful temples that have inspired and attracted our Sthapati.

Calling these temples by the name “Twin Epics” and Epics of Science, twenty years back he delivered a speech on them through All India Radio. Now I recall this to my memory. As an immediate next step our Sthapati should write about the scientific concepts and secrets lying behind these two epical temples and inspire the people to derive their encouragement and support. Long live the Vāstu Veda and the traditional art of Vāstu.

Vāstu Vedic Research Foundation,
Madras - 41.

— Er. V. Ramamoorthy
Executive Director



INTRODUCTORY

In the year 1991, my friends took a video-documentary under the title “The living tradition - A shilpi speaks”. This documentary was directed by Mr. Bala Kailasam, the son of the renowned cine-director Mr. K. Balachandar. In that documentary I expressed some of the truths and expatiated some of the principles related to the traditional science of Vāstu and revealed some of my spiritual experiences gained through my traditional practices and contributions. These truths, principles and many other kindred thoughts were floating all along on the surface of my mind-space, waiting for a proper moment to be projected out. I outpoured only a fraction of those thoughts. Both Mr. Bala Kailasam, the director and Mr. Ramji, the camera-man put their mind and soul in that documentary so as to render it as an ennobling literary and technical feast. The video documentary was screened in most of the important cities of India and also in New Delhi. All

the more, it was selected and screened in the Film-festival of 1991. Having been adjudged as an excellent documentary, significant of its own theme and character, it won the Presidential Award. Consequently, it was telecast in the Network programme of Delhi Doordarshan. All those versatiles in the field of art and architecture, artists, admirers, researchers in that field, technical experts who saw and enjoyed the documentary, met me in person, with their heartiest encomium and enthusiastic encouragement. They expressed their intent desire that such documentary consisting of the abundancy of the unfailing principles of the traditional science should be filmed in plenty. Their words and views were blessing for me.

Reviews about this documentary appeared in many of the national news papers, journals and magazines such as The Hindu, Madras; Indian Express, New Delhi; The Economic Times, Delhi, etc. Expressing my sincere thanks to the editors of these journals, I furnish here some extracts from the commendations that appeared in them.

“As he talks, cosmic concepts are no longer abstruse. The relationship between inner and outer space, time and eternity, the microcosm and the

macrocosm, akasam and agni, the manifest and the unmanifest, the form and the formless become simple affairs of everyday reality! One sees this tension as the basis of creation impelling the definition of form in time....

— The Hindu, Madras, March 1, 1991.

“Ganapati Sthapati is one of his kind ... a rare combination of artistic skill and an incisive intellect. In the film, he says: ‘The Universe is subject to a mathematical formula and architecture is yet another manifestation of this formula’. A statement that opens your window to the Universe.

— The Economic Times, Delhi, 20th Jan., 1991.

“Co-winner of the national award for the best documentary film on art and culture, this is one of the outstanding films among this year’s award winners and is one of the most revealing analyses of traditional aesthetics that we have yet had in film documentation. It represents a study, which, in the critic’s, opinion, far surpasses the work being done on contemporary art....”

— Indian Express, Delhi, 12th May, 1991.

In the year 1994, the Doordarshan of Madras Kendra interviewed me and telecast that video-documentary. The authorities of the Doordarshan, Madras Kendra made me speak on this traditional science by giving me a place of honour in the series known as “Experts who have left their impress” (முத்திரை பதித்த வித்தகர்கள்). They

projected me as well as my contributory services. Added to this, a critical essay and review appeared in "Hinduism Today", an American Journal. Foreign scholars and researchers in the field of art and architecture who happened to study those writings, bought a video copy of that documentary. As and when they came over to India, they used to meet me and discuss those matters that have been revealed in that film and by this they received further explanations and elucidations.

An institution, dedicated to the promotion and propagation of the scientific and technological principles of Vāstu tradition was founded by my friends and myself in the year 1992, under the name "Vāstu Vedic Research Foundation". Under the auspices of the Vāstu Vedic Research Foundation, Madras, an 'International Seminar on Mayonic Science and Technology' was organised and conducted in January 1993 in Madras. Even on this occasion, the documentary film was shown to the scholars and delegates who participated in the seminar. Likewise, it was screened to the Theosophists who came from different parts of the world and assembled for the convention organised by the Theosophical Society, Adyar, Madras. Thus the

video documentary was subjected to repeated screenings. Owing to these repeated shows, the traditional science of Vāstu gained prominence and admiration among the scholars, scientists and technologists associated with various institutions and universities. But one point has to be placed here. I couldn't say that all the subtleties of this traditional science have been expressed in this documentary, this being the first of its kind. Only a fraction of the scientific and technological principles of Vāstu tradition was brought to the notice of the scholars and researchers. Only this much was possible in filming the documentary.

I said that was the documentary, first of its kind. It should have been followed by some more films, involving and elaborating the same theme. But due to various reasons, it was not possible to make consecutive and sequential films. Since I felt the exigency of the exposition of the traditional vāstu, I started writing and publishing a series of brochures, monographs, treatises and texts, with the view of enkindling the hearts of contemporary youngsters, artists and architects; and with the aim of pegging their mind into the domain of Vāstu science.

For the centuries of years now, the traditional shilpins have remained deeply engrossed in their own profession, being tight-lipped without speaking on their creative potency, on traditional science of Vāstu, its subtleties and on the infallible grammar of structural science. With the result, so many truths and principles of Vāstu science have gone into oblivion. All the magnanimity and the rights of their prestigious profession have now gone away from them. The most genuine and pristine tradition of Vāstu has now lost its intrinsic values, due to the emergence of superstitious ideas that are incompatible to the intellect, spiritual experience and intuition. The crumbled and dilapidated condition of the present day Vāstu tradition grieved me much. I was forced to submit to the dictum that “only father has to speak about his son”. Submitting so, I involved myself in the service of writing and in the series of journey. I gained enthusiasm and energy to speak about the tradition of Vāstu and to write about the science of Vāstu. I speak and write what I have read, what I have heard, what I have known and what I have experienced. That’s all. I am writing both in Tamil and English and I publish a series of small treatises, each one not exceeding 60 pages, under the common

title “A shilpi speaks”. With a view to easy handleability during journey-time and of finishing the reading within a short span of time, I did so. If it be in a bigger volume, it would go only to the library (not being in an easy access to the public). And once it goes to the library, it would easily be forgotten; it would remain unnoticed. We are living in a world of rush-through and tension. As such, to forget even the essentials is but natural. Is it not? So I made all sorts of effort so that these publications are easily available to the scholars and youngsters.

In the year 1994 itself, I spoke in more than fifteen places, both in India and abroad. Washington D.C. (U.S.A), Edmonton (Canada) Sydney (Australia), Munich (Germany) - in all these places, I spoke about the science of Vāstu before the assemblage of scholars. Since the concepts and principles I spoke were related to science and technology, I preferred to speak before the engineers and architects and on many a time and in many a place I did so. Important places to mention are: Madras, Salem, Pune, etc. Further, I delivered a keynote address in the Congress on Traditional Sciences and Technologies organised and conducted in I.I.T., Bombay in 1993.

Likewise, I delivered another keynote address in the International seminar on repairs / renovation and rehabilitation organised at Visakappatnam by the Andhra University. At the special convention, in connection with the World Heritage Day (1994) celebrated at the Government Museum, Madras, I spoke on the science of Vāstu in the immediate presence of Hon'ble C. Subramaniam, who was the former Educational Minister of Tamilnadu and the former Finance Minister as well as Minister for Science and Technology in the Central Cabinet and well-known in the sphere of Indian Art and Culture. I was able to put forth my ideas to his satisfaction and exultation and received his blessings. As a pleasing effect of all these speeches on Vāstu at various occasions and in various places before a good gathering of scholars, it was possible for all to understand and appreciate the science of Vāstu and they were in praise of these speeches.

Further, great and erudite persons who have understood the significance of traditional Housing Architecture (i.e., Architecture based on the tradition of Vāstu science), helped me in elevating this traditional housing architecture to the status of industrial architecture and in deriving the blissful

benefits thereby. Nowadays, the principles of Vāstu science are being considered and realised to be the life-moulding and life-perfecting principles and they find good response and reception among the public. An engineer in Madras has founded a forum by name “Shilpa-Sastra study circle” for the purpose of group reading and discussion on the science of Vāstu. There is an institution called “National Institute of Science and Technologies and Development Studies” (NISTADS) functioning under the aegis of the Government of India. It came to know of all these activities put forth by me and it invited me for a meeting. In the year 1994, having accepted the invitation I went to New Delhi with my friends, participated in the meeting convened by the NISTADS, and explained to the scientists and technical experts about the enduring significance of Vāstu science. They listened to my expositions, wondered and appreciated the scientific nature of the Vāstu tradition. They assured that they would render all possible help for the immediate upliftment of the scientific Vāstu tradition through the Government of India. Thus I availed of all the beneficent opportunities rendered through varied ways and channels.

Though not spiritually, I am getting old physically. So I feel a strong urge and have an intense desire that many more persons who have heart-to-heart friendship with me, who are bereft of caste or religious or racial distinctions and who are deeply interested and diligently involved in the science and technologies, should join with me in this noble pursuit and purposeful quest and propagate the everlasting and ever-relevant values of the scientific Vāstu tradition. Keeping myself in this pursuit, I am releasing a number of short monographs and books. Like those who experience insurmountable difficulties and hardships in excavating the ruins of buried cities and buildings I am to undergo hardships and impediments in unearthing the valuable truths of Vāstu science that have gone out of sight and glided out of recognition. In this task of unearthing I am continuously putting forth my endeavours as well as my earnings. But I could say that I am not tired because of all such endeavours and expenses. The noble tradition of Vāstu science keeps me fervid and favourable. I realise well that Vāstu science is a traditional science that has brought the unseen Almighty, to the immediate vision of the humanity; that Vāstu science,

as an infallible system, has encased the invisible Supreme Energy within a mathematical frame; that Vāstu science, as a systematic discipline, has formulated Form to the Formless and that Vāstu science is a unique technique that has seen and shown the feet and crest of the Supreme and Primal Existence. It is the utilitarian scientific discipline that has structured an unfailing process to communicate with the Existence that is Supreme and to experience the bliss that is ineffable.

Such a great tradition is now getting disintegrated and crumbled, in front of my own eyes! I became sad and scattered by seeing this.

Many a time I have shed tears, being unable to bear with this plight. I resolved to overcome this vitiated situation. Thinking that it would be good to render all possible services single handedly, I undertook a simple effort of recording the perennial principles of Vāstu known to me, in papers and brochures. I limit myself with speaking and writing on these principles. My works continue silently, with the hope that at least one or two persons would follow the suit, after I leave behind everything.

My writings appeared in the reputed journals such as Tamilar Panpādu (meaning, the culture of the Tamils) and Kisan World, for which Dr.N.Mahalingam, the well-known Industrialist and great scholar, is the honorary editor. Both Mr.Ilayaraja, the supreme maestro in cine-music and Mr.Vairamuthu, the famous lyricist in cine world invited me and discussed with me about this traditional science about which I am writing and expressed their cheerful and cherishable feelings and encouragement. I could say that their expressions and encouragement strengthened my legs meant for the purposeful journey into the domain of Vāstu science. Meanwhile, I was asked by the “Kalaimagal” magazine to contribute an essay, not exceeding two pages to be published in the Dipavali - special issue. Inspired and interested, when I started writing, it exceeded the limit and reached upto the extent of 40 pages. I asked the editor over phone whether there could be the possibility of publishing the article that has spanned about 40 pages. “You send it to us and we will abridge it” — the editor told. Immediately I forwarded it and afterwards there was no communication between the editor and myself. The good hearted editor, who could have

understood the values and subtleties of space-concept that have been highlighted in the article, published it in its full-measure, not leaving out a single word, and of course, with necessary illustrations collected from his own office source. At this juncture, I feel it my duty to record my sincere thanks to that editor who has been so generous and reasonable.

My friends who saw the article published in the Kalaimagal rejoiced and told that the article has attained a new additional meritorius tri-dimension through its appearance in and association with Kalaimagal (meaning also, Saraswati, the Goddess of learning). Having carefully read that article they raised certain questions and received explanations that were relevant. They suggested that the article could be brought out in a book form, appending the elucidations and explanations. They also wanted me to write elaborately on Mayan, the Pro-genitor - architect of the Vāstu tradition, to write on the subtle concepts related to the Dancing-form that have been coming down traditionally through the ages, on the relation between Viswakarma, popularly known as the Divine architect and Mayan and on the relation between Māyan of Mexico and Mayan of India. They insisted further that since the researchers and experts

who have known extensively about the Indian architecture and sculpture, speak nothing about the traditional sculptors, their contributions and the concepts related to the traditional architecture and sculptures, their researches and investigations would attain wholeness and perfection if a shilpi himself help them by providing with authentic and copious details about the principles and concepts related to the traditional architecture and sculpture. They also suggested that this elaborated book, based on the article that appeared in the Kalaimagal Deepavali issue (1994), should consist of three parts — preface, main theme and epitome - and should be brought out with essential illustrations and diagrams, so as to be of immediate and immense guide to the contemporary youngsters who are evincing great interest in this area. The ultimate effect of these suggestions and counsel is the present book. I thank them all who made the article appear in a systematic and full-fledged book-form and helped the edition to see the light of the day.

In this short book, I have tried to explain how the scientific principles of the Vāstu tradition have been employed, nourished and preserved in the most ancient temples of Tamilnadu, namely Chidambaram

and Srirangam. I have explained how these temples have been, all through the ages, right from their emergence, functioning as the veritable living beings and how they have been keeping alive both the spiritual and physical well-being of humanity. I have also explained the ingenious concepts by which these temples have taken form. The chief aim behind such explanations is to install these subtle principles in the minds of youngsters and to enkindle their contemplative faculty. I realise, to much of my chagrin that the science which I am professing has been enclouded by the unreasonable notions and unfounded faith to the extent that even at the very instant of hearing the word 'temple', the present day youngsters wrinkle their faces. I realise also that because of such deep rooted and abundant superstition, a scientific tradition devoted to the exalted profession and ennobled way of life for centuries over, has been relegated to the backyard, marginalised and suppressed. I grieved over these misfortunes and in order to alleviate these I ventured to write on this theme.

Many great persons and reformers, savants and saviours have tried to ward off these misfortunes resulted out of stupidity and superstitions. Have they

succeeded? or, shall I gain victory in my attempts and endeavours? You, the readers, could know better. Kindly write to me, after reading this book.

In the capacity of being a traditional shilpin who is whole- heartedly devoted to and immersed in the field of architecture and sculpture, I also contemplated the present day plight of the shilpins of Vāstu tradition. I am writing about this science of Vāstu in order to inspire all those hailing from this tradition and to make them devoted and dedicated to the noble tradition of Vāstu science. For the purpose of systematic researches on this traditional Vāstu science I am also running a monthly journal in English by name, “Vāstupurusha” myself being its editor.

Silpa is an art that emerged from the anvil of the shilpin and growing with the age. It is an art, that had been cradled and nourished by the ancient rulers. Such an art that was endearingly brought up by the kings and the members of old society, has lost its lustre during the foreign rule. Such an art, impoverished and enmeshed, is now in the hands of scholars and scientists. They are also writing about this art, but their views and explanations are not

pleasing to me. Most of their expressions are only peripheral. They do not find appropriate steps by which they could reach the depthness of the subject matter. Therefore, to contribute my share in this task, I undertook a journey in search of the roots of this tradition, and in search of truth. All the time during my writings on this traditional science, I feel as though somebody is leading me by hand. Unhesitatingly I follow the lead, without being least affected by physical pain or mental fatigue.

The truth I am searching for is too intricate and intrinsic, ingenious and subtle. Still more intricate is the exposition about the truth, if at all it is to be pleasing and appealing. One thing that gives me solace is that scientific knowledge gained by the contemporary people through Western impact, is helpful and conducive in understanding the concepts I am putting forth. This scientific knowledge imparted to us is the only guiding lamp or the propping staff available to us. Therefore I am emboldened to walk further and further and write more and more. My writings continue, even driven by the motive that the contemporary youngsters should recognise and revere the great kings of the by-gone age who kept alive the temple architecture

and they should realise the enormous and enlightening services rendered by the shilpins who are the true followers of a pristine tradition and who tread on the impeccable path without any interruption, having set aside their pitiable state of impoverishment, and without being least affected by the pecuniary difficulties.

There are certain synoptic statements and views which lie scattered in various sources which serve as the basis and explanatory for the scientific tradition, some of which are stated below.

“Science should be religion” — the categorical statement given by Einstein, the Nobel-Laureate.

“Prajñānam Brahma” — the vedic formula.

“Jagat - sarvam silpameva bhavati” — the dictum occurring in the shilpa vidya rahasyopanishad.

“Vijnānam silpa kausalyam” — the statement occurring in the Bhagavatam.

“Vastureva Vāstu” — the scientific and cryptic formula given by Mayan, the first and the foremost Vāstu Vijnāni.

All these statements I keep around my main theme and proceed to construct this work. These statements are very cryptic and synoptic, the significant meaning of which is too difficult to grasp. If at all I am able to understand at least a fraction

of the total content of these statements, it is only due to my professional experience and knowledge inculcated to me by my revered father and paternal uncle and due to my knowledge of Vāstu sāstra gained through the traditional stream. Above all, the most authentic works such as Mayamata, Aintira Vyākaraṇa, Aintiramata - all written by Vāstu Vijnāni Maṇi. Silparatnākara also known as Maṇi, Mānasāra, Vāstu Vidyā, and Silpavidyā-rahasyopaniṣad, the sacred text being held in high esteem by the tradition of shilpins, helped me in great measure having set my inner vision in its appropriate vibrant function.

Not only this. At this point of time I reverentially remember all those great persons who willed with fervour and facilities to implement the subtle principles of Vāstu science and to put them in purposeful and beatific operation through me and who patronised my works. Some of them are in India and most of them abroad. Having heard from me the refined and ingenious principles of Vāstu shastra and realised their utilitarian values, they not only encouraged and inspired me but also got benefitted by agreeing to incorporate those values and principles in the works and constructions assigned to me by

them. Of these great persons, three dignitaries are worth mentioning here. One is Dr. Sivasubramanyan, the other is Dr. Nakulan and the third one is Dr. Krishna Reddy. These are the persons who commissioned me in building a Siva-Vishnu temple at Maryland in Washington D.C., U.S.A. Of these, Dr. Krishna Reddy was the President of the working committee which organised and arranged for building a Rama temple at Chicago, U.S.A. and he attained great success in his attempt. Besides being a true follower of Ramakrishna Paramahansa's way of spiritual discipline, he is the great admirer of the values and views of the Vāstu tradition.

At this point of time, I want to bring to our memory, a great Raja Yogi. He is an American Hindu saint. He is a great Rishi, who, being a votary and promoter of Saivism, has been rendering commendable services in America and in many other countries where Indians live. This Rishi, who has a charming appearance of a perfect Sivayogin, has established an Ashram/Adhinam at Kauvai, one of the islands of Hawaii. Thereby he is nourishing and preserving the sacred path of Saivism with purity, total identity and dedication. To be more precise, he keeps the Saiva religion grow in a more scientific

way and at the same time not allowing it to run counter to the traditional and scriptural values and views.

I have the great honour and privilege of moving with him closely from the year 1980. On many occasions I had discussed about Vāstu science with him, who, by his own nature, has acquainted himself with scientific principles and trends.

I have explained to him that only the science has taken such forms as Sivism, Saktheism, Vaishnavism and so forth and yielding its fruits. I used to refer very often the dictum that 'science should be religion', as formulated by Einstein. For instance it is only the indescribable scientific phenomenon that we experience as music. We experience and enjoy by seeing the architectural constructions and sculptures which have been fashioned out of the same scientific phenomenal concept. We view them as the expressions of godly existence and we experience bliss, by such vision. Through aural we enjoy music and through visual we enjoy the visible forms (sculptures and constructions). All these *i.e.*, music and forms are based on one and the same scientific principle. Whenever I explain all

these experiential truths, this American Rishi H.H. Sivaya Subramuniya Swami would lose himself in these inexplicable experiences. How he is able to understand the subtle truths of Vāstu science? The secret is that he belongs to the lineage of 'Nāda Sampradāya'. Brahman is twofold - Sabda brahman and Artha brahman. I understand clearly that since he has known the spiritual technique of experiencing 'Sabda Brahman', he is capable of experiencing 'Artha Brahman' also.

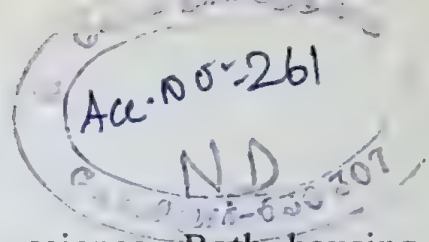
H.H. Sivaya Subramuniya Swami is an efficient orator, great scholar and a deep researcher. His book titled "Dancing with Siva" is acclaimed to be a world classic. Having gone through the basic scriptures of the world religions and understood their fundamental principles, he is capable of expounding the truths with authenticity and courage. He keeps around himself great intellectuals, scientists, engineers and spiritual leaders. Being well-trained and perfected, he is able to understand the principles of Vāstu tradition, to value them and to appreciate them whole-heartedly. He rejoiced and revelled when I revealed to him with plausible evidences that in Māyan of Mexico I have seen the subtle principles postulated by Mayan of South India. He very often

encouraged me to go on further in my quest of Vāstu truths.

At the behest of this Jagadguru, who actually lives and breathes the spirit of Indian Religion, I have been appointed as the Chief Architect - Principal Sthapati for the construction of a Siva temple at his ādheenam at Kauvai (Hawaii), the whole construction being in granite at a cost of 2 million dollars. Lord Nataraja is the Principal Lord of this temple. I am stating all these facts to make known his deep interest and involvement in the traditional science. Besides understanding the concepts related to the science of Vāstu which I am speaking about, he realises, like Valmiki, the unrivalled efficacy of Mayan. Having understood the truth that this Mayan was the same Māyan who worked wonders in Mexico, he has planned to install a memorial for Mayan himself, in Hawaii. When I commented that his plan of installing this memorial has evolved a pleasing and charming scope for the union of East and West, he happily felt a sense of accomplishment.

Thus, for the science and technology of Vāstu, I gained support and good reception from the holy

saints, enlightened scholars, learned persons, Sanskritists and linguists. To maintain this information about the growing support, I wish to state that the government of Karnataka have announced a gift of rupees one lakh every year for the skilled and efficient sculptor and the same government have constituted "Shilpa Kala Academy" to safeguard the welfare of the shilpins. There is remarkable progress in this scheme. The shilpins of the Karnataka state have joined together and requested the government to start an Institute of higher learning by name "University of Traditional Sciences and Technologies" exclusively for the traditional shilpins. As the first step, they are to run a college known as "The Viswakarma Institute of Traditional Sciences and Technologies" in this year itself. Students can apply from any state of this country and join in this institute. Even girls are admissible. An inimitable course combining both study and practice has been evolved. New schemes, curriculum and relevant practicals are introduced in this course, so as to fulfil all the modern demands and needs and to be relevant to the modern context. At the same time, enough care is taken to see that there does not occur any damage or disrespect to the



sacred tradition of Vāstu science. Both housing architecture and temple architecture are to be taught here. I hope that Indian culture and civilisation would gain stability in this great land and benefit the people, if both the Central and State governments help in this regard. It is my humble request that each State government should introduce such reformative schemes and uplift the tradition of Vāstu science and technology. It was such reformation and upliftment that was envisaged as his goal by Mahatma Gandhi, who spoke and wrote repeatedly on such goal. When shall this come into being? When shall it attain status and supremacy? Let us hope for the better.

I request those who read this book to write to me about their views and impressions. I would be most obliged to them, if they do so. If they have with them more news and views and scriptural evidences relevant to and in support of my concepts, they could help me by sending them to me. If there are views and concepts in this book to be differed or refuted, scholars who think so, may state them with relevant supports and quotes. I would accept them with reverence and gratitude and publish them in the next edition, incorporating my explanations thereon.

With the sole motive of enabling the readers to understand easily the most subtle and ingenious concepts of Vāstu science, I have approached them and explained them from many different angles. I request the readers to collect all these views that appear fragmentarily here and there so as to have a complete form and derive the full benefit of experiencing the wholeness of truth.

2

Temples of Space - Science

Scholars who have undertaken deep studies in the field of Temple Art have estimated that there are about 35,000 temples in Tamil Nadu, identified and registered and there are temples, twice this number, which remain to be identified and registered. If we estimate the temples in adjacent states and other provinces, the total number of temples would run into several lacks. Such a large number or innumerability of temples in India, is not without significance. If we take a penetrative vision on each temple, then it would be clearly seen that each temple is endowed with remarkable and significant aspect, not to be seen in other temples. People of this land revere and preserve these significant aspects and derive benefits both for their physical and spiritual well-being.

Among the innumerable temples of this sub-continent, there are two great temples which exist

with incomparable and inimitable uniqueness. True it is, that these two temples are famous for their historical antiquity and architectural and sculptural grandeur and wealth. Over and above these merits, they carry with them a rare and significant scientific concept and it is by this concept they rise above all other temples. It is for this reason, they are revered and frequented by the devoted and desiring people.

The basic aim of this writing is to bring to the notice of the youngsters the fact that these two temples exist even to this day in the fullness of their constructional features and forms and the fact that the scientific concept encapsulated in these temples is ever alive and vibrant. By this writing I want to induce them to preserve them in all their fullness and significance. Out of these two temples, one belongs to Saivism and the other to Vaishnavism. There is a wide-spread view in Tamilnadu that the very term "Koil" (meaning, temple) if it is said without any adjective (like Thiru, etc.), would denote only these two temples, which bear the significant names "Thiru-Citrambalam" and Thiru-Arangam. I want to state emphatically here that these are scientific names bearing with them the entire spectrum of value-oriented principles. Thiru-Citrambalam is also

called Chidambaram and Thiru-Arangam is also called Srirangam. In Chidambaram temple, the Principal Lord is Nataraja and in Srirangam temple the Principal Lord is Ranganatha. The tradition holds that only these are the two Principal Lords whose names got associated with the term “Raja”, long before thousands of years. There are many reasons for calling them so. But apart from these reasons, there is a scientific truth as the very basic foundation upon which the most ancient shilpins built these two temples and created the two main images of Supreme Divinity. This basic scientific concept, I would say, has not so far been told implicitly or explicitly. Being impelled by a strong urge that the contemporary youngsters, who are much interested in knowing science, should understand this basic scientific concept. I want to place before them in a free and simple style certain subtle concepts of science related to architecture and sculpture.

Out of these two temples, scholars have spoken a lot and written a good deal about Chidambaram temple and Lord Nataraja. But nobody has spoken or written on Lord Ranganatha to that extent. I could say that there is no authentic work written exclusively on Ranganatha. (If there is one such, I

request the readers to let me know the details of the book). Scholars and experts who get charmed and fascinated by the beatific dance of Nataraja, have not paid their attention nor cast their look on the peaceful and serene yogic sleep of Rangarāja. This state of affairs made me think deeply. The result of this deep contemplation is the very title of the book, "Temples of space-science". Today, however, the Srirangam Temple has attained name and fame to the effect that the only temple which has the tallest gopuram in the whole of India is the temple of Rangarāja. But what is the specific characteristic that enabled it to achieve this grandeur? What is its scientific basis? What is its uniqueness? — are we not impelled to raise these questions? As relevant answers to these questions I want to state here some of the principles known to me as an architect, sculptor and builder and the principles handed down to me by my predecessors. My experiences and contemplations in these areas enable me to understand them in their proper perspectives.

The foremost and forcible service of the ancient shilpins was to give concrete expression to the scientific concepts of the cosmos. That was the time when the shilpins functioned as creative architects on

as architectural poets also. To explain the spiritual bliss and spiritual science as experienced by transcending the physical or material planes - was the main role assumed by the architectural poets. This was what the ancient shilpins did. Did not the poets and musicians do the same function? Is it not the radiance of science that we experience through music? I want to point out here that the ancient shilpins realised the Supreme Existence as the scientific substance (Vastu). They viewed God as the principal one embodying science in itself. To hold that the Supreme Existence is the supreme scientific substance is logically correct. Even the Vedas proclaim that 'Brahman is of the nature of Supreme Consciousness' where consciousness is really subtle matter. What kind of science is that the Vedas speak? This also I shall explain here. I am going to make you hold in your hands only a few drops of the vast ocean of science contained in the heart of the Vedas. As such, it is not the entire spectrum of this traditional science that is presented in this book, since I am limiting myself within the scope of the subject matter.

Of late a shift of concentration is noticed in the writings of modern scholars. They have written many

books bringing out the externalities of these creations the instead of describing the scientific concepts behind the architectural and sculptural creations of the shilpins. That is, they have concentrated more on the constructs than on the concepts. It is only now that they have begun to look at the shilpins, in addition to writing a detailed account of the architectural and sculptural works. They now realise the values of the shilpins, they revere them and discuss with them. So far they were under the impression that the temples were mere constructions rendered in pretty and beautiful artistic designs in which divine images have been installed for worship. They have spoken and written in the same strain. Now, that impression has gone away. They have begun to contemplate whether these temple-buildings could be the veritable expressions of the scientific concepts of cosmos. Now only they have started to attentively hear the information, elucidations and experiences of the shilpins. Now only they have known to cast a look that could penetrate beyond the concreteness of the creations and reach the scientific reality behind them. It is not exaggeration to say that because of their recent approach and outlook, the scientific truths related to the tradition of shilpins and

vāstu are now gradually coming to the forefront to be seen and realised.

So far the situation has been worst. So many aspects of the Vāstu tradition have been neglected by the writers of ancient history and civilisation. The origin of the shilpi-tradition, shilpi- community, the functional aspect of this tradition, the technical concepts of the shilpins, their basic scriptures and their authors, various institutions and guilds created by them, their knowledge related to the art of sculpture and architecture, their knowledge of science, their commendable role in the origin and development of Indian civilisation, their unique contributions and explanatory experiences in spiritual science, their original and commentarial works - these and such other aspects are the multi-facets of the Vāstu tradition. But no scholar or writer has approached these without likes and dislikes and revealed any of these aspects to the people. Activities such as city and town planning, construction of forts and fortresses, of palaces and houses, official and civic buildings, lakes and tanks, vehicles, creation of wooden and metal objects, temples and sculptures, armouries and defensive equipments and all other household goods - all these and such other activities

are being undertaken by the modern engineers and architects. But we should not forget the fact that in the former days all these were done by the shilpins only. No expert or scholar has so far clearly brought out the truth that the only community which had the full right and privilege of doing all these activities was the community of the shilpins.

These shilpins who were ignored and marginalised during the foreign rules, lost their due rights pertaining to the perfecting activities mentioned earlier and limited themselves only with two areas - temple construction and sculpture. Without letting down these two fields, they continued to work within this limited ambit. As a result, their efficacy in creative arts other than temple architecture and sculpture, their technical knowledge and skill remain shrouded and totally unknown to the present-day world. There are about 5 crores of people belonging to the tradition of shilpins or viswakarmas living throughout the length and breadth of India. Yet there is not even a single representative either in the loksabha or in legislative assembly to voice forth the grievances of these traditional people to the governments, to find remedies and to uplift them. As has taken place in Japan or as envisioned by

Mahatma Gandhi, if the traditional skill of the shilpins were properly channailised and put into operation in all the development schemes of India, there could have surely occurred striking advancement and accomplishments in industries and technologies in such a way as to excel even the fast developing countries like Japan. On the contrary, the traditional shilpins were stigmatised as the blind supporters of religious fanatics and were ignored and ousted. To view them as delimited by religious distinctions is totally unfounded and unjustifiable. They are above religious realms even though they know religious systems, the scientific truths of these systems and their significances. While they are at such deteriorated state, the government of Tamilnadu started a college of architecture and sculpture at Mamallapuram and as the first step it saved and preserved the traditional science and technology. It is not exaggeration but a historic event to state that no other state government in India has taken such an effective step to preserve the traditional skill. Though this traditional knowledge is, with all its merits and dimensions, in the safety hands of younger generation, I don't see any healthy symptom for its further unimpeded growth.

Against this background, let us now see how the temples of space science, namely Chidambaram or Citrambalam and Srirangam, which have been existing for the ages, emitting the radiance of science. I hope that the unique science being traditionally held by the shilpins would be clearly understood through these temples. When I say that there is a scientific basis in these temples, it is but natural to raise the question as to what type of science it is that we see there.

The architects, artists and poets who adhere to the traditional principles should know that, nowadays, science is held to be of two kinds. Let us now look at the first type. Having seen the external features and analysed external functions of Nature, scientists have sifted its subtle and internal structures and mechanisms. They have subjected them to the relevant and fitting mathematical laws. To bring out new creations according to the derived mathematical laws and utilise them for the well-developed material life is the motive of the first type of scientific system. I think "Science" is the more apt term to denote this type, the reason being that this is the system that has grown completely based on rational thinking. This type of scientific system is of the

nature of changing rapidly and proliferating extensively, since this is based on physical and gross universe which itself undergoes frequent changes and modifications. We could particularly see this type in the developing countries of the west. But this type of scientific system is charged with shortcomings and discrepancies that the sciences and technologies related to this system are conducive only to physical comforts or material prosperity.

The second type of scientific system is eternal and immutable. It is directly related to the self which is beyond the reach of rational thinking. This is a system centred on spiritualism and spiritual discipline. In short, it is spirit-centric. Instead of calling it "Science, based on intellect" we may call it the Science of spirit or Energy or Science of space. Let us have a further look of penetration on this.

To go directly into the very heart of Nature, to know its features and functional processes, to frame them into mathematical laws so as to constitute an infallible grammar, to create objects in accordance with that grammar, to infuse the very Nature into those objects so as to be in total harmony with it -

all these are the significant aspects of this second type of scientific system. It was such a system of science that came into being in our land thousands of year ago. This is the actual truth but nobody would believe that such a science has been existing for a long time. When it is said that this is spiritual science, we would be confronted with a volley of questions - Is there such a science? Is there any benefit that could be derived from this science? Will it be possible for this science to create objects for our earthly pleasures? Can we see such objects or are they mere ideational objects to be experienced only at certain levels of mind? Based upon these questions the scholars would be groping for evidents and historical facts and figures. Such historical facts and events have not been dealt with so far. Perhaps they may re- appear in future. Instead of calling it spiritual science, we, the shilpins call it "Science of Vastu" and "Science of Vāstu". There are scriptures and technological treatises based on this science and we call them Vastu Sāstra and Vāstu Sāstra. The science of space or science of Vāstu which had been so far in a forgotten and enshrouded state, has now attained the meritorious state of being a key-word. Nowadays it is very often spoken by the

academicians and scientists. It has become a main theme and subject of research in academies and institutions related to science and technology.

Among the scientific traditions flourishing in the world from the very ancient times, the tradition of Vāstu science shines forth vibrantly with a unique basis, efficacy, subtlety and applicational values. Even to this day it exists as a living tradition. Holding in its tight grip the Primal Existence or substance which is unseen and which is unattainable by ordinary means, this tradition of Vāstu science has conducted many experiments with the self and the Nature. By its applicational efficacy, it has grown, has functioned and has worked so many wonders in this country.

Our Vāstu tradition has ascertained that there are five gross elements - earth, water, fire, air and space and holds that all these five are present not only in the vast space of universe but also in all the living beings and worldly objects. It further holds that SPACE is the fundamental source and energy for all things, for their origination and for their existence. This important scientific concept, the tradition of Vāstu has been holding with it from the

Vedic period, and in fact, from the period even prior to the Vedic times. Right from that remote past, the tradition of Vāstu science has functioned by putting into operation its unfailing scientific principles. Apart from this, it is holding yet another subtle concept. It maintains that SPACE itself turns into spatial forms and it has its own mathematical order or dynamics for changing into aural and visual forms. I could say that this concept is a treasure-trough of science being carefully kept by the tradition of Vāstu science. It would not be an inflated view to say that only this scientific tradition, by its application of that mathematical order, has brought into existence Indian civilisation and culture worthy of great merit and glory. All the temples, sculptures, architectural constructions, innumerable artistic wonders and many other objects of utility and embellishments - all these which are wondered, appreciated and revered even by the foreigners, are all, indeed, the creations of the traditional Vāstu science. Being born of such traditional science, these creations render not only physical pleasure but also spiritual bliss and spiritual well-being and perfection. Only on this ground, this traditional science of Vāstu is also called spiritual science. To put it more precisely, this spiritual

science, like music, dance and poetry moulds us and directs us to experience the inexplicable spiritual bliss by effecting a communion between its own artistic creations and spiritual consciousness.

With regard to the theory of five gross elements, there are varied opinions. Certain traditions of the world accept only three gross elements - earth, water and fire and in place of air and space, they hold wood and metal. So according to these traditions, such as in China, the five gross elements are earth, water, fire, wood and metal. Likewise, the contemporary science accepts only four elements, leaving out the fifth one namely ākāśa or space. The contemporary science based only on intellect and rational analysis, is not in a position to accept the view of Indian spiritual science that space is the primal and foremost one among the five elements. It is not possible for it to analyse and realise the innate nature of space and to speak about its essential characteristics. Nor is it possible for it to apply the principles of space and to derive benefits thereby. So according to this empirical tradition of science, there are only four elements. It is not only that the space is not reckoned here but it also refuses to accept the view that for all things space is the origin, basic

source and place of existence and of movement. The reason for such obstinacy is that it is not possible for this tradition of Intellectual science to enclose or limit the space within the four walls of a laboratory and to conduct experiments and undertake analysis on it. So, as far as this Intellectual science is concerned there is justification in refusing to accept the space as the primal substance or element which is not subjected to scientific experiment.

Thus the modern science enumerates only four elements and even based on these four, it has effected enormous and wondrous contributions and by these it has attained supreme status. Keeping the modern material science on one side and the Vāstu science on other side, if we think deeply, we would be inclined to say that the modern science which has attained a supreme and dominating state, is not able to reach the towering height of the summit that has been touched by the Indian spiritual science. This is because Vāstu science has grasped into its fold a subtle and primal substance that has been ignored and neglected by the modern science. It has conducted experiments on it, has realised the fundamental truths and rendered everlasting benefits thereof. That subtle and primal substance is nothing

but space. The workings of Vāstu science have been very much efficacious and effective. It has a close and penetrative look on space and gone deep into it. Having analysed the characteristic features and the dynamic order of space, it realised with certitude that space is vibrant and conscious one and it turns into spatial forms. This significant concept of space-science is the central and key theme of Vāstu science. It employed this central theme in the field of technology and created an inimitable realm of art. By employing this principle it brought into existence cities and towns, palaces and houses, temples and sculptures, vehicles and bedsteads. All these have been created by Vāstu science to appear not as spiritless and inert construct but to exist and shine forth as living and vibrating organisms. Each building or each image created by it is a breathing substance. The Vāstu science has afforded so many houses and buildings endowed with specific features that enable us to be in harmony not only with the outer world or outer space but also with the indwelling spirit or self and to attain all the benefits of health and bliss. What I have detailed so far here, is not philosophical discourse or writing based on mere speculation.

These details are not only historical facts but they continue to exist even to this day.

The basic idea of these two kinds of science material or intellectual and spiritual or space-science-could be summarised as follows: The modern science being material in pursuit, searches energy in matter and utilising this energy it creates new objects. These objects are meant for material welfare only. Vāstu vijnāna, being essentially spiritual, searches matter in energy and utilising this matter it creates energetic, animate and vibrant substances. These are ultimately useful for spiritual welfare. These are the fundamental modes of operation of these two sciences.

Though the modern science is immeasurably powerful and powerfully creative, it has not done anything to spiritual well-being and spiritual calmness. This inefficiency of modern science is widely discussed nowadays. For anything to be valuable and estimable, its ultimate utility is the ground factor. This modern science is even severely criticised that all the products of modern science are invariably and inseparably followed by dangers and threats. Such severe criticism may be due to the

simultaneous and co-eval presence of both fruitfulness and fearfulness.

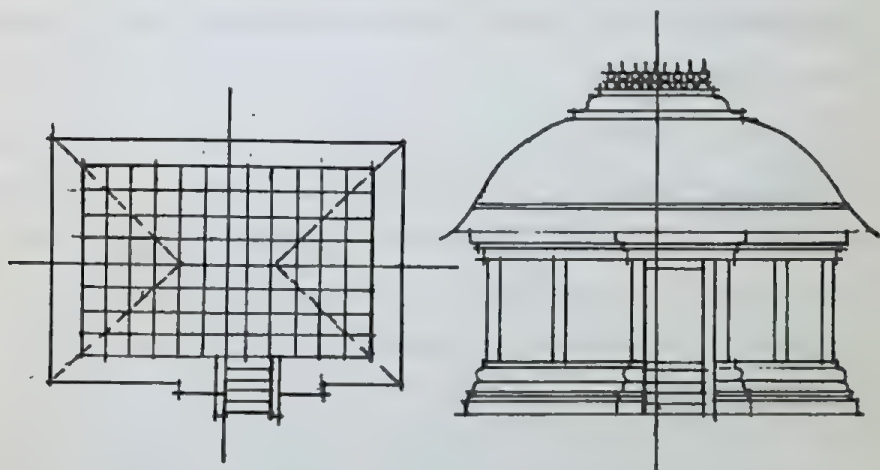
I am speaking about the scientific creations of Vāstu science that are capable of bestowing spiritual comforts and bliss. When I speak of this, most of the readers would be under the impression that I am keeping in my mind the temples, divine images and religious doctrines. It is not so. I keep myself above and beyond all these things. I realise fully well that all those artistic creations that have emerged out of traditional science of Vāstu are capable of infusing spiritual well-being and bliss. This point I am emphasizing very often sometimes directly and sometimes implicitly. Without taking much time and without being elaborative, if it be expounded precisely, this much may be said: Indian traditional science known as Vāstu Vijnāna creates our houses so as to be the actual living organisms and musical forms and enables the indwellers of these houses experience musical charm and spiritual bliss.

Spiritual calmness and spiritual bliss - these are always the ends that are much sought-after by human race. These are the two spiritual fruits that are offered by the buildings created by the science of

Vāstu. This is the exact message I wanted to tell you. The traditional Vāstu science effects these ever-lasting fruits through the external structural embellishments and the internal configuration of living spaces. For the purpose of effecting these, there is a unique mathematical formula or order in the tradition of Vāstu. This is known as vāstu rahasya (secret of Vāstu tradition). Rahasya is nothing but the inimitable and most subtle concept of space-science and this is what the scientific tradition of Vāstu enunciates.

Space is, essentially, energy-filled or energy stuffed. If this energetic space gets limited or enclosed by four walls, then the building raised by such enclosure actually becomes a living organism, having rhythmic vibrancy. This is what the tradition of Vāstu science expounds. Is it not a great wonder? It ascertains further that like the inner-space enclosed within our physical body, the house also consciously feels and vibrates. Not only this. This rhythmic vibration is made to resonate with our inner vibrations and by this resonance the indweller of the house is able to be in harmony and communion with the universal space (Paramātmā) and to experience spiritual bliss. The spiritual well-being

and spiritual bliss that could be derived by going to the temple would be gained even by being in the house rendered as a living organism by the science of Vāstu. The house itself offers all the benefits of going to the temple. This is the efficacy, ultimate motive and purpose of the science of Vāstu.



Plan of Chitrambalam

Elevation of Chitrambalam

The built-house should be on par with a temple which is the home as well as the form of God. This concept is what you perceive in Chidambaram temple. What you experience there is the exact operation of this concept. How is that Chidambaram temple? It is actually a house. Unlike an ordinary temple, it is exactly a small house standing on a

raised and rectangular plot. The enclosing walls are made of wood; the covering roof is also made of wood. It is a house whose roof is covered with gold-tiles. In order to preserve this 'house' in all its scientific conceptual frame, Diksitas, 3000 in number, were employed by a Tamil-king. So many people to maintain a small house? Has such an incidence taken place elsewhere?

What is that which is found inside that house? A space; simply a space housing nothing concrete within itself. We call this space "ākāsa". (The wonderful image of Lord Nataraja which we see there is for a particular reason. To this point we shall come later).

Of what nature is that ākāsa? It is of the nature of consciousness itself. By its own innate nature it **feels**; it vibrates. It manifests its consciousness through its vibrant waves, through the waves of ever-going throbs. The vibrant waves emerge according to a mathematical order or formula. Indeed, measurements of architectural constructions are defined and determined by this mathematical order. A person who stands before that 'house' or 'enclosed space' called "AMBALAM" gets infused

and kindled with vibrant waves and subjected to their pronouncing impact. If the vibrations of his inner-space and those of the “ambalam” are in resonance, then he becomes one with the ‘ambalam’ or space, one with the vibrant consciousness. How this resonance is possible? This is just like the musical harmony that manifests when two vīna-instruments are tuned to one and the same pitch. The frequency of one vīna is in harmony with that of the other. Only this kind of harmonious response is called ‘bhakti’. This is the definition of bhakti in terms of science. Where there is no harmonious response, there cannot be bhakti. Bhakti, which is also known as love, bestows on us spiritual health, spiritual calmness and spiritual bliss. It is Vāstu vijnāna which brings out spiritual peace and bliss by such an easy means of harmony. Is this not simple and charming? To the extent there is simplicity, there is charm, there is truth.

Only this space-science capable of effecting the beatific spiritual well-being is called ‘Vāstu-Vijnana’ by the shilpi-rishis of our country. The rishis of shilpaic tradition evolved this incomparable scientific tradition and technology even before 5000 years. In spite of their continued impoverishment,

marginalisation, suppression and such other impediments, the shilpins, setting aside these difficulties and surmounting them by their own efforts, have been preserving and safeguarding this scientific tradition for the benefit of the world. Their services in this regard are memorable for ever. I am indebted to state this fact with a sense of pride.

It is true that space is not visible to our physical eyes. But we experience it. In and out, the space is of the nature of consciousness only. It is a conscious substance encompassing within its fold all the worlds, all the living beings, planets and all the worldly objects. This is the highest concept being held in the tradition of Vāstu science. As stated in the Vedas, the space, besides giving rise to air, fire, water and earth sequentially, exists as the root, origin and place of existence for all the cosmic creations. Not only this. This tradition has found through its methodical quest and analysis that space, the most potential and subtle substance, exists within us and within all other living beings and it impels, directs and activates everything. This tradition also holds that the same ākāśa is called antaryāmi (directing factor residing within) when it exists within the living beings as inner space and the same ākāśa is

called *linga*, when it shines forth as the space-foetus (*vin-karu*) giving rise to the emergence of all things

Mayan, the *Vāstu vijnāni* and originator of *Vāstu* tradition perspicuously states in his *Mayamata* that it is space (*ākāśa*) itself that is known as *linga* and which dwells in all things (*sarvātmīyam lingam ākāśameva*). Not only that; he holds that the subtle existent or subtle energy which animates the entire range of things is *Vastu* and all those living beings and cosmic substances in which *vastu* gets itself installed are denoted by the term *Vāstu*. According to him, *Vāstu Purusha* is the personified energy contained in the *Vastu*; that is, *Vāstu Purusha* is the energy itself contained in *Vāstu*. Even the *Vāstu sāstras* state that *Vāstu Purusha* is the same energy which exists pervading all the objects of the universe around us in general and pervading and permeating the whole earth in particular. To put it shortly, *Vastu* is the subtle energy and *Vāstu* is the gross energy; *Vastu* is the unmanifest energy and *Vāstu* is the manifest energy. Since there is no difference between a thing in its unmanifest state and the same thing in its manifest state, Mayan goes ahead further and declares authentically that “*Vastureva Vāstu*”—*Vastu* itself becomes *Vāstu*. This is a unique formula

in its subtlest form, being held in high esteem by the Vāstu tradition. If it is true that vastu is subtle space, then is it not true that all those which originate from it, which derive from it and which abide in it are Vāstu only? Vastu becomes Vāstu means space itself turns into spatial forms. This is a non-dual (advaitic) phenomenon. Just like gold turning into gold ornaments, water becoming bubbles and sound turning into meaningful word or sound-substance, space turns into spatial forms. Therefore we ourselves become Vāstu; our world also becomes Vāstu; the whole universe and the entire range of objects of the universe become Vāstu; nothing is or exists apart from or as different from Vāstu. From this phenomenal truth we could ascertain one more fact. All those objects in which Vastu gets itself established are obviously animated objects, are 'breathing' substances. There is nothing in this universe to be negated as inanimate or inert. Therefore, is it not clear that space or ākāśa is a living organism or an organic whole, eternal substance, existential substance? Only this eternal substance is called Vastu, says the tradition of Vāstu. The term Vastu is actually a verbal noun, formed of the root 'vas' meaning 'to live', "to exist". Therefore

the exact content of the term vastu is to exist eternally.

Let us analyse further the subtle phenomenon of vastu becoming vāstu. Let us take the example of common and simple occurrence that takes place everywhere. We hear and understand what one speaks. What is **heard** is only sound; and what is **known** is the content, which is actually aural or sonic form. This analytical view is according to the science of sound. There is a much celebrated work on Tamil grammar called Nannūl and it defines the letter as the sound formed of conglomeration of sound atoms. Therefore all the word-forms are the sound forms or sound patterns constructed by sound atoms. Sound-atom is nothing but an atomic-sized subtle sound.

We comprehend an object denotable by a word not only by hearing but also by seeing. Hearing is due to the sound atoms which constitute a particular word. Then, of which thing all those objects comprehended by seeing, are formed? It is here the Vāstu tradition introduces implicitly a subtle scientific theory, which has effected so many wonders in the world. All the visible objects are

indeed luminous forms made of light or light atoms. Just like the sound atoms constitute the sonic form, even so the light atoms, constitute the visible form. One more truth implied in this theory is that the phenomenon of sound and light turning into sound form and luminous form respectively takes place both in inner-space or subtle space (chidākāśa) and in the outer-space or the supreme space.

This theory could be expressed in a modified or reversed form also. If there is 'atomic-sound' as the originating source or root of sonic substance or word-form, there should also be atomic light (அணு ஒளி) as the source of visible object or luminous form. Atomic sound is the source of audible form and atomic light is the source of visible form. If so, where do these sound atoms and light atoms exist? They are pervading and filling the entire space, they are co-eval with the space, the space negated by the modern science.

Since space is a subtle substance it is not visible to our eyes. But because of its non-visibility its existence cannot be negated. Even the sound is not visible to our eyes, but do we say that there is no such substance as the sound? We do not say so

because we actually experience it, *i.e.*, sound is subjected to our consciousness. Sound becomes our consciousness and makes known its relevant object. Because of its informing or indicating character, sound is said 'to exist'. Likewise, the object known through visibility is also subjected to our consciousness; it also becomes our consciousness. The exact place where the audible and the visible become consciousness is **space**, which is denoted by various terms such as inner space, outer space and so forth. Moreover, what we say as awareness, experience and such other happenings are indeed the expressions or the expressive manifestations of conscious substance itself. This conscious substance is also called material consciousness. Only this material consciousness is experienced by us through light and sound, which are in space as composite substance. This is excited or aroused by a powerful and wonderful vibrancy known as feeling or consciousness.

This phenomenon could be conspicuously stated like this: The sound consciousness and light-consciousness of the outer space turn into sound forms and light forms. Sound atoms and light atoms serve as the raw-material for these forms. It is

consciousness only that becomes the manifesting energy or shilpi to render the relevant form. It is this shilpi who is referred to as Viswakarma in the Vedas. Nobody could say from where does this consciousness come into being and how does it come. It is self-born (svayambhū) or self-manifest energy or substance. Only this self-manifest energy or space-consciousness is called PRAJNĀNAM in the Veda which completes its quest by ascertaining that this prajnanam itself is Brahman or the Supreme Existence. “Prajnanam brahma” — is the foremost and pivotal aphorism of the Vedas. At this point the Vedic texts speak almost in a submissive voice that no one knows or no one would be able to know what is beyond prajnanam and that it is doubtful whether it is known to the Supreme Existence itself. Thus the Vedic texts place this consciousness at the point of pinnacle of science.

The creative consciousness which arises from space assumes a form by means of space-atoms which serve as raw-material. Since that consciousness presents itself in each and every atom, it is plausible to hold the view that only the atoms, essentially being of the nature of consciousness or light, turn into audible and visible forms. Therefore, it is

self-evident that space itself turns into spatial forms. This is the highest and the most esteemed concept being held in the tradition of Vāstu science. Being the very root and being the primal substance, space (ullam in Tamil) itself gets vibrant feeling and turns into a form concordant with that feeling. This is also an incomparable concept of the science of Vāstu. We have to notice one more point. For the emergence of form, the proportionate measurements pertaining to that form are very much essential. What is the basic source that provides these proportionate measurements? That basic source is nothing but space-consciousness. What are these measurements? What is the name of the energy that provides these measurements? How does the space make use of them? — all these principles are known to the science of Vāstu. This scientific tradition has also known how these principles are put into operation through technological processes. For the purpose of implementing these principles, the traditional shilpins have with them an infallible mathematical order or scheme. The Vāstu sāstrās are dealing with this mathematical order elaborately. This scheme is very extensive and deep deserving a separate writing and hence it is not explained here.

Let us come back to the subject matter of space and continue to analyse. Some additional points I mentioned here so far with the hope that they would be helpful in understanding the scientific concepts to be placed here. While speaking on sound and light atoms, I referred to atomic sound and atomic light. Of these two, it is the atomic sound that is repeatedly spoken as OM-sound (ஓம் ஒலி) and sonic-OM (ஒலி ஓம்) in the Vedic trend and the Agamic trend. Is there not an inviolable injunction in the vedas and the agamas that all mantras should begin with OM-sound? It is one of the basic concepts of the vedas and the agamas that all the words emanate from the primal sound OM. The Kiranāgama states : “ekam nādātmakam jñānam OM-ityeva sthitam param” — “All the scriptures are of the nature of single letter “OM” which is supreme and exists eternally”.

It is this view, invariably held by the religions also. Primal sound is of the nature of rising above and above and shooting forth, and for this reason it is called OM-sound and Omkāra. This is one of the definitions of OM which seems simple and pleasing.

It is an ascertained fact that OM-sound is the originating source of all words or sound forms. But unfortunately we have stopped at this level, being satisfied with the concept of OM-sound. We have desisted from going further and pursuing the quest. We have failed to raise the question: "If OM-sound is the basis for all the audible words and sound forms, then what is the basis for all the material objects or material universe seen through the eyes?" We have not reasoned on this aspect. It is here that the tradition of Vastu science reaches its acme. All the scriptures and religious and philosophical systems have spoken about OM in its sound aspect only; not on its luminous aspect. But the tradition of Vāstu being essentially scientific, has well conceived the luminous aspect of OM as OM light and maintained that OM light is the causal factor for all the visible things. The science of Vāstu plainly speaks that OM sound is responsible for sabda prapanca 'sound universe' and OM-light is responsible for artha prapanca 'material universe'. Just like the OM-sound, even the OM-light emerges from the inner space and the outer space. If there is no light in inner space, how would our speech and even writing come into effect? Of the reflection or image of which they

could come out? Is it not the inner vision or the vision of light or light consciousness itself that manifests as word-form? So, for the manifestation of word forms, not only sound-consciousness, but also light-consciousness is necessary. It is clear that apart from OM-sound there is OM-light also, as the primal and basic factor. It is only for evidently manifesting this concept in a visible form that the temple of Chidambaram is meant. To demonstrate the inevitable and vital role of both OM sound and OM light in the manifestation of forms is the underlying principle of Tiruchitrambalam - *i.e.*, Chidambaram temple. Instead of saying that Chidambaram temple is a house with an empty space inside, we have to state that it is the house replete with light; the rectangular hall filled with light. The empty-space of Chidambaram temple indicates that the form worshipped inside the rectangular hall is OM-light only. Is that clear now that Chidambaram temple is the unique temple of space-science as held in the tradition of Vāstu science? Chidambaram temple has been built not only for the symbolic expression of space concept. With an emphasis, I want to state that it has been created for another reason also: To demonstrate and maintain the view that all the

spiritual benefits such as well-being, calmness, bliss, etc., are derived through the waves of light consciousness or of OM-light that emanate from this temple and they emerge naturally scientific phenomenon. Thereby, this unique temple enables the people experience these benefits directly.

Only based on this space concept, St. Tirumūlar, the Great Siddha and the author of Tirumantiram, states that inner space is the worthy and fitting seat of the Primal Existence or God. The term 'ullam' in the Tamil text, as expressed by St. Tirumūlar, denotes only the space; ākāsa. The construction built in such a way as to enclose the space is called by him 'ālaya' (உள்ளம் பெரும் கோயில்; ஊனுடம்பு ஆலயம்). Is it not the body that serves as the enclosing walls? Therefore he states that the physical body itself is ālayam, the enclosing structure. The building itself, primarily being a material energy, is known as Vāstu and the enclosed space, primarily being the subtle energy is known as Vastu. This is an immutable concept being traditionally held in the science of Vāstu. So it holds good to say that house is a living organism as maintained by the tradition of Vāstu science. What is the final view is that the Chidambaram temple or Citrambalam is actually a

house, an effulgent house in which light of consciousness is in its repletion. What takes place there is the worship of light; what shines forth there with all visibility is the Dance of light; the form installed there is the rhythmic dancing form of the resplendent Lord Natarāja.

The basis, the primal root of the traditional housing architecture is even to-day in Chidambaram or Citrambalam only. It is only in Citrambalam that the house has been built and demonstrated to be a perfect living organism. Why this house has been named **Citrambalam**? Ambalam means hall; ciru means small. Citrambalam (ciru+ambalam) means small hall, a hall of minute size. There is also another name for this — **Citravai** (ciru + avai) which also means small hall, small abode or microbode. Mayan frequently employs the name **Citravai** in many of his works. This house has not been called 'perambalam' or peravai, meaning the great hall. There is a fundamental reason, bearing scientific significance for not being called 'perambalam'. Let us turn to this point.

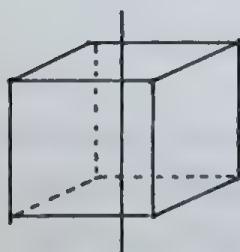
Earlier I said that space is of the nature of undiminishing effulgence and this space is brimming

with minute atoms of light. In short, this space is luminous-space. The single “Substance”, known as Vastu Brahman, which is consciousness itself, getting kindled and excited of its own accord, extends everywhere and pervades everywhere and this state assumed by the Vastu Brahman is known as Light-space. The name of the energetic atom is paramānu, according to the Vāstu tradition. We cannot see this paramānu, but we could feel it, we could recognise it. The Vāstu sāstra states that the paramānu, which is not ordinarily visible to the physical eyes, is visible to the perfect yogins. Vāstu Vijnāni Mayan states:

परमाणुरिति प्रोक्तं योगिनां दृष्टिगोचरम्

“paramānuriti proktam, yoginām dṛsti gocaram” meaning, the minute atom called paramānu is visible to the trained contemplatives and meditators only’. Even though paramānu is not visible to the eyes, it is known through our consciousness and for this reason it is ascertained that paramanu is an existential substance and hence paramānu is vastu. In fact, the exact literal meaning of the term vastu, to which I have repeatedly referred, is ‘the existing substance’, ‘eternal substance’.

There is one more point to be observed here. For the existence of a thing, three dimensions are essential. A thing cannot have its 'real being' or existence with two dimensions only. Let us consider a sheet of paper. Though it may appear to be two-dimensional only, having length and breadth, in reality it is tri-dimensional with its thickness included. If there is no thickness, the third dimension, what would happen? The paper could not have its real existence! Can we have a sheet of paper bereft of thickness? In the whole of universe, there is no such thing as two-dimensional. Not at all!



Cube



Transformation of cube into sphere

Even for the existence of God, the theory and truth of tri-dimensional is essentially applicable. Based on this point, we could easily prove that even the space is tri-dimensional. Tri-dimensional, both the inner

space and the outer space. Therefore, even the space atoms should be tri-dimensional. Of what kind of tri-dimensional substance, the atom is? It is a **cubic**, whose sides have equal dimensions. This is the most fundamental and irrefutable truth conceived by the tradition of Vāstu science which, by virtue of its unique and astonishing findings deserve the most prestigious awards and prizes instituted in the world.

Within this cubical atom there is a luminous thread, like a filament in a bulb and it is always dancing there; it is in continuous throbbing. Only the effulgence of this luminous thread is variantly called inner space, outer space, supreme space, minutest space (daharākāsa), subtle space, open space and so forth. To this light-thread, which keeps on dancing from within the cubical atom the tradition of Vāstu science has given a significant name - Brahma Sūtra! (the thread of light or consciousness). The tradition of Vāstu science has rendered another scintillating name also to the luminous thread which is dancing rhythmically within the cubical atom. That name is "Luminous Natarāja" (ஒளி, நடராஜன்). The rhythmic dance performed by Lord Nataraja is significantly described by the Vāstu tradition as the 'Dance of Light'. The cubical effulgence of the atom is called

‘luminous atom’ (ஒளி அணு). Only this luminous atom is known as **microbode** (சிறுநவை). Microbode (cubicle cell) is described as **OM-light** and tejo-bindu by the tradition of Vāstu as well as by the Vedic texts. On logical analysis, it would be very clear that even the **OM-sound** the counter part of OM-light, should be in cubical form. By this, have we not deduced a complete and perfect form of OM-in its light and sound aspects? Yes, the form of OM is basically cubical.

Within this OM occurs the dance of light, which is known as Omkāra natana. Various modifications assumed by OM are denoted by the term Omkara natana. The ‘OM’ in its aural and luminous streams rises above and above, higher and higher and turns itself into the universe, the objects and beings of the universe. These risings, or surges and transformations, we, the Vāstu vedins very aptly and beautifully call Omkāra natana. I have already explained the meaning of OM, as rising above, or surging high, growing and proliferating.

Consciousness turns into light and the conscious luminous atom splits of its own accord, melts like a wax, assumes a form compatible and relevant to its

feeling or consciousness, rises above and transforms itself on and on. Whenever we speak impelled by consciousness, at each time and in every second, the luminous atom splits itself, melts, takes a form, gets integrated again and become one, splits again and so on. These happen again and again in our inner space as a continuous phenomenon. This is the plausible explanation of why and how we speak continuously and we act continuously. Only this process of manifestation of word and deed - sound and action is called by us traditionally, the **Creation** (srsti). That is why this Omkāra natana, known as the surging dance is described in religious works as the creative dance (srsti tādava). What takes place in reality is not the creation of a new thing; but transformation, metamorphosis or self-manifestation. This point should be borne in mind. Only this luminous atom which performs the creative dance, we call God. We worship only this; we meditate only on this. How fortunate we are to have a glimpse of this luminous atom!

The minutest subtle atom, paramānu, feels or experiences an urge, splits up and manifests as a conscious form through our mouth or our hands. Forms come into existence only through this

sequential process. Based on this pattern of manifestation and reflective of this pattern, there is a technological process in the traditional practice of Vāstu science. We can observe this process in the technology of moulding wherein copper is smelt along with other metals and divine images are created. To maintain and enact the natural order of atomic melting and manifestation, the process of moulding has been fashioned. There is a specific injunction which is observed even to this day by the traditional shilpins that the image of Natarāja should be made of metal only and made only through the process of moulding. The image of Nataraja, fit for worshipful activities is not made of any other substance. Lord Natarāja is conceived here in this tradition as the one who has descended down from the supreme space, who has reached the world-plane through space and who is the spatial substance (விண்பொருள்). The tradition holds that Natarāja is the one who is born of space-foetus (vin- karu) and who has manifested of His own accord through space. Therefore is it not right to say that this is the big-bang theory of India or more particularly, of the tradition of Vāstu. Only those who have realised themselves, who are fortunate and perfect enough to

see themselves in the objects or forms effected through their own efficacy and dexterity, would be able to understand and appreciate this theory. Is it not clear that there is a close relationship and identity between the material world and the subtle world? This is the process of subtle world becoming the gross world.

The cubical form, explained earlier, is the intrinsical form assumed by paramānu when it is in its own innate state of tranquility, that is, when it is in its own essential state of existential calmness. This is a qualitative state which manifests from the inner space or ākāśa and is known as sāttvika. Sāttvika means the fundamental or basic state, existential state, state of calmness. To bring a FORM into existence, certainly an action or effort is essential. If there was no such action or effort, how could this world or universe have come into existence? Therefore, our inner space has to shift itself from the state of calmness to the state of action. The normal state of calmness gets itself changed into the state of action. In this process of transformation the cubical prism (கிற்றை) first assumes the octagonal form and finally the circular or spherical form. This concept of change in the intrinsic form of cubical

prism is the scientific theory of Vāstu tradition. The two forms - octagonal and spherical or circular are the linear forms of the wave patterns of energy that arise owing to the action of inner space. These two forms that have undergone transformation owing to the changes in quality are called rājasa and tāmasa respectively. Tāmasic state is the final state or the gross state of energy-space.

This world is called tāmasic world, according to the traditional usage. The meaning attributed to the term **tamas** by the speculatives of philosophical and religious systems is not applicable here. According to them, tāmasa means dullness, lethargic or inertness. But the real meaning is **gross**. Tāmasic world means gross world, world full of gross, concrete and perfect forms. That is why I explained the vedic mantra

तमसो मां ज्योतिर्गमय

“tamso mām jyotir gamaya” as to mean ‘lead me from the gross to the subtle’ in one of the conferences I took part. I could say this is a technical approach to the vedic mantras. Are they not qualities that assume relevant forms in this

world? The Vāstu sastras classify these quality-bound forms as Nāgara, Drāvida and Vesara. Out of these, Nāgara is sātत्विका and cubical; Drāvida is rājasa and octagonal and Vesara is tāmasa and circular.

नागरं शात्त्विकं प्रोक्तं
 राजसं द्राविडं भवेत्
 वेसरं तामसमित्युक्तम्

All the processes related to the changes in qualities could fittingly be called 'space-dynamics' about which much has to be written as a separate work.

We saw earlier that consciousness turns its luminous atom and this luminous atom splits up, melts and assumes a conscious form. The form of luminous Natarāja is assumed in this process. It is the image of such luminous Natarāja that is installed inside the space-house, popularly known as Tiruccitrambalam or Chidambaram. The VASTU manifesting itself as the total expression of space-dynamism or space-vibration, as the frequency of the vibration of space, as the mathematical form and limiting itself into that mathematical and

rhythmic order, keeps always dancing. The beautiful and rhythmic image of Luminous Nataraja is indeed the VASTU which is eternally dancing. This image shines forth as the spatial substance, as the energy contained in inner-space, as a non-dual (advaitic) existence capable of manifesting itself and as a unique ardha- nāri form in its perfect metamorphosed state. The significant features of this wonderful image shall be explained further.

Shilpin who wants to give a concrete visual form to a theme or a concept, actually goes deep into that theme or concept, identifies himself with its core, turns himself consciously and completely into the form totally relevant to the theme/concept. Even a person who wants to present the same concept in a word-form or in a speech-form undergoes the same experience i.e., he himself becomes the concept, the word-form or poem. The former assumes the form of action and acts accordingly and the later assumes the form of speech and speaks accordingly. These transformations take place of their own accord; they manifest themselves. . This is because self-manifestation is the very nature of space, ullam (உள்ளம்) or ākāśa. The self- manifestation of space occurs eternally and in every being. In this process

of self- manifestation, space, which is of the nature of consciousness, experiences creative or manifesting hotness, melts and assumes a consistent form - this is the secret of creation or manifestation, the sequence of creation. The creative hotness experienced by the space bears the name Vaisvānara Agni or cosmic fire. 'Visva' means space and 'nara' means man. The term vaisvānara is derived from the word visva + nara and it means the cosmic man. The subtle body or frame assumed by the conscious space, after getting transformed, is denoted by the name cosmic man. The fire, coiled at the centre of this subtle frame or body is known as cosmic fire. It is the cosmic fire that melts the trained persons willing to render forms and enables them to become themselves identified with the conceptual form. It is explained in the scriptures that heat is at its maximum degree at the crest of the flame which is bluish. The presence of blue flame is also experientially seen. This fire is eternally present in space as well as in us (i.e., in the living organisms).

The hotness of the blue flame is very aptly called in Tamil "piral navac cūdu" (பிறழ்நவச் சூடு - பிரணவச்சூடு), which means the hotness of OM. OM is called piral-nava-pranava because it eternally

manifests anew through countless modifications. To demonstrate the view that the space itself assumes a form, to illustrate the fact that space is of the nature of the elemental fire and to establish the truth that the basic order of proportions pertaining to the primal form assumed by the space -the image of luminous Nataraja-the Primal Image which includes in itself all the lineaments and features related to the imaging art-has been installed in Chidambaram. These are the exact reasons for the beatific presence of Lord Nataraja inside the space-house (Citrambalam). If not, placing an Image or Form inside a place meant for the worship of a formless one, would become contradictory. The Image of Nataraja is the Primal Image, being expressive of the secret of creation in the process of which Formless becomes instantaneously endowed with the features of perfect Form. In fact, this is the mathematical form which serves as the very basis of cosmic structure.

With certitude, it could be well maintained that the form of Lord Nataraja in Chidambaram is also the complete and concrete expression of Einstein's formula $E=mc^2$. Space is replete with energy, which, by virtue of its pervasion and penetration, equates

the unmanifest with the manifest. This energy could have been considered as G-O-D even by Einstein, who considered God as luminosity and energy. We went ahead by one more step and in addition to realising the God as luminosity and energy, we have discovered exact form of that luminosity and energy through the science of Vāstu and we are holding it as adorable and experienceable. God is a Conscious Being; we are also conscious beings. If conscious waves of God and men mingle with each other and become one, the resultant effect is the unalloyed and the ineffable bliss. It is such union of consciousness of the two streams that is called bhakti or devotion. If the conscious being known as man supplicates the conscious being known as God, shall the God answer his prayers? When Marconi, who invented radio, was elevated to the status of God by means of praises, he told to the critics and admirers: "My investigation proves beyond doubt that all your sincere prayers addressed to God certainly reach Him". In bhakti of perfect type, the sense of identity and oneness is very important. The primal image of Nataraja is conducive to such an identity and oneness.

The name 'silpa' is applicable to the image of luminous Nataraja only. The word silpa is derived from the word **nurpa** (நுற்பம்) or **nutpa**, meaning the state of extreme subtlety. All images, other than the image of Nataraja are the replicas of the one and the only one silpa and that is why they are known as '**pratimas**'. They are the secondary images (**prati-ma**). The primary image is the image of Nataraja, the Primal Existence. It is the First Image assumed by the Primal Existence (**mūlam**) of its own accord to reveal itself through. If it is seen in its natural order, it would seem consistent to rational thinking and real experience, to state that the human form is the form of GOD. It is equally tangible to sculpture the GOD in human form. Factually speaking, all the objects of the universe are the images (**pratima**) of the arche-typal image, the primal image of Nataraja. This concept is, I could say, the pinnacle of the summit of the **Vāstu** science.

We record our speech in a cassette. The first cassette is, so to say, is 'silpa'. All other cassettes recorded after the first one are the 'pratimas'. If the secondary cassettes are operated, we are able to hear the same speech as recorded in the first. These cassettes do not fail to reproduce the same speech,

even though the first cassette may be out of sight. In the same way, all the images whose proportions and measurements are concordant with those of the primal Image are considered to be effective and purposeful on par with the primal image. This is also an important theory proposed by the Vāstu science. The main tool that could activate the pratimas, that could enable the images to perform their relevant functions, is the prayer. Prayer is the activiser. All the dealings concerned with pratimas, such as prayer, offering, etc., go by the name pūja which is classified in different ways like Agamic, Vedic and so forth. For all these actions, what is basically and essentially needed is sublimity of inner consciousness or feeling of the worshipper. The worship should be full of feelings and consciousness. Consciousness reigns supreme in spiritual and spatial perfection. It is conscious substance that is rendered in a beautiful and charming word-form or poetic-form. We consider a rhythmic poem or a meaningful mantra as the manifestation of God; we call it sabda-brahman and we have formulated a separate and exclusive process of worshipping it. This mode of worship has gained popularity in our country.

One of the ascertained and quintessential theories of the Vāstu science is that all the objects

of the universe are 'silpas' only. This means that all forms are the manifestations of space, effected through its own consciousness and modifications. That is why the Silpavidyā rahasyopanisad, one of the basic texts of the shilpins declares

जगत् सर्वं शिल्पमेव भवति

"jagat sarvam silpameva bhavati"- all the worlds and worldly objects are the modifications of silpa only. This is the secret of creation. Only that systematic and organised branch of knowledge which is capable of illustrating this secret is fit enough to be called 'Science' in its exact sense. That is why the ancient shilpins proclaimed that 'Vijnana is that which effects the dexterity and perfection of silpa' (Vijnānam silpa kausalyam). Let us not forget the truth that the Image of Nataraja shines forth as the basic mathematical order for the emergence of all other forms and as the basic Form or image manifested in accordance with that fundamental mathematical order. I have said earlier that this is the source-silpa, being the very basis for the emergence and existence of all the worlds and the worldly objects, which also collectively go by the name 'silpa'.

In relation to silpa, we have to think of another art known as drawing. Basically, sculpture and drawing (ஓவியம்) are one and the same, since both abide by the identical mathematical order. The only difference is that the drawing is linear form and the sculpture is tri-dimensional. This view is also one of the findings of Space-dynamics.

The cubical prism, of which I spoke earlier, is the basic structural design adopted by the ancient Vāstu vedins for the construction of a house. The house built on this design is known as 'dandaka sālā' or 'eka sālā' or a single phased house. Sālā means house. In this type of construction we could observe a subtle fact that the house has been patterned and built in such a way as to be a creation of living organism or a breathing substance. One point may be added further. The house is not only in the form of a living organism but also in the form associated with all the principles of human organism. We breath and live inside this living organism only. Only with this significance, all the dwellings, abodes, houses, palatial buildings, storeyed buildings, pavilions, halls, temples, vehicles, bedsteads and so forth were constructed in ancient times. Now a section of our contemporary society has well understood the fact

that the houses and dwellings, built according to the principles of Vāstu, are spiritually oriented, spiritual abodes that are capable of affording spiritual health and calmness, as well as physical health and comforts. It has realised that these traditional houses are significant and wonderful constructions which depict internally and externally the self or spirit and its functional modes and which enable us to live in harmony with the Nature. Not only it has understood so, but it also actually experiences the congenial benefits thereof. As the effect of such understanding, it is now going in search of the Vāstu s̄āstras and the Vāstu Vedins. Of late, I am speaking very often that the Vāstu tradition is a living tradition promoting the human etiquette. This point is heartily received, cherished and appreciated by the people. Having experientially seen that an abode or environment that is in total discordant with the principles of Vāstu affects both mind and body, they whole heartedly accept my views. They realise well that the reason for well-being is not only the amount of air-capacity inside the house but also the amount and purity of vital energy in air (prāna 'śākti) that encompasses inside and outside of the house. The vital energy of air inside and outside of the house is regulated and

made to be in free and unobstructed operation by a mathematical calculation. Only this mathematical order has been rendered as the units of measurement in Vāstu technology. They realise well that only the houses, their patterns and designs are responsible for health and illness, for prosperity and decay. The scientific truths related to architecture, recognised and set forth by the ancient people who lived in various lands, forests, and caves have taken form as the Vedas, astronomical works, grammatical works, literature, etc., which prevail authentically and relevantly even to-day. We may be fortunate enough to avail the facilities of modern science, we may soar above and above into sky; we may fly at the greatest speed. But when it comes to the matter of comfortable and healthy living we are ultimately left with only one choice: to have a perfect house. We are forced to shift our residence, when the house, presently occupied is not conducive to health and prosperity. We move from one house to another in search of health and peace. Even our saints and enlightened persons show a particular path as conceived by them and direct us to go to the House of Supreme Bliss, after having enabled us to realise that the mundane house is not permanent and not fit

enough to live in. But Vāstu science has got its own assurance with regard to the mundane house itself. To create and offer the house of supreme bliss, and to enable us to experience that supreme bliss here in this mundane house itself — these are the prime motives of the Vāstu science. I wish to re-state that a simple, effective and illustrative model of the house of supreme bliss is the small house, known as Chidambaram, the house of space-science and product of space.

There are fructifiable chances now in our country for the immediate proliferation of the scientific tradition of Vāstu. This scientific tradition would flourish well if the government wills to uplift and promote, if the scientists realise the significance and relevance of the principle of Vāstu science. The unfailing knowledge of Vāstu would surely result in the creation of effective constructions, spiritual abodes and healthy buildings by availing which the spiritual peace and physical health of the people would grow more and more.

Let us resume the analysis of the concept of luminous atom. It was said earlier that space is filled with luminous atoms. Light presents itself as a

filament or thread inside the cubic atom known as microbode (chitravai). The scientific name applied by the tradition of Vāstu to the luminous thread is Brahma Sūtra. This luminous thread vibrates of its own accord. This vibration is going on for ever. It is the vibrant throb of the luminous thread or the thread of consciousness that is called “the luminous dance”, “dance of light” and luminous Nataraja.

नतत्रसूर्यो भाति नचन्द्रतारकं ।
 नेमे विद्धुतो भान्ति कुतोयमग्निः ॥
 तमेव भान्तं अनुभाति सर्वं ।
 तस्य भासा सर्वमिदं विभाति ॥

This luminous thread is the basic source of cosmic effulgence. The Mundakopanisad, in trying to explain the nature of this luminous filament, provides a wonderful estimation and description about this.

“There the sun does not shine, nor the moon, nor the stars; nor do the flashes of lightning shine there. If so how can this fire shine even? Everything shines forth only after this and because of this; by this light all things shine forth diversely”.

Traditionally, we are speaking about this luminosity as the Supreme God, Primal Existence,

Existential substance, the Blissful and the Beautiful and so forth. Neither the brilliance of the sun, nor of the moon nor of the stars nor of the fire could be equated or compared with the luminosity of the effulgent Brahman-light. Nothing of these could excel it. It shines forth as the basic source of illumination for all the luminous objects of the universe. It shines forth of its own accord, i.e., it does not derive light from any external source. On the contrary it serves as the very basic source of light for the whole universe. This is the innate efficacy of the primal light-thread. That is why the Mundakopanisad calls it “Jyotisām Jyotish” (II:ii:6) i.e., light of the lights. This is also called Brahma Tejas, Paramjyoti, etc. In Tamil we call it ‘peroli’ (பேரொளி)/ the unexcellable effulgence, and in English we call it spiritual light. This incomparable light is of the nature of consciousness itself. Is it not consciousness that sees and makes us see, that hears and enables us hear? So this itself shines forth as the Brahman and the energy of Brahman; this itself is the luminous Nataraja. The word light actually means consciousness. The Tamil word oli, which means light, is derived from the root OL (ஒள்), another form of ul (உள்). (OL — OLLI — OLI or ul — ulli — OLI). Here

‘ol’ refers to light and ‘ul’ refers to consciousness. The sunlight, which is gross, is nothing but consciousness of the sun. What we say as solar energy is this consciousness only. This consciousness kindles or incites our inner consciousness and makes us see the objects. We cannot see the bright sunlight with our eyes. When we try to see it we say ‘our eyes are squinting’. Our inner light i.e., inner consciousness is more powerful and effulgent than the light of hundreds of sun; it is with indescribable and immeasurable brightness. Since it is with so much density and power we are able to see and feel what is happening inside the inner space or heart, a vision that cannot be possible by means of physical or external light, even it be of thousand suns. This is the nature of inner vision. The throb or the rhythmic vibration of the inner consciousness is realised to be the rhythmic dance of light, to be the luminous dance. In its metamorphosed state, it becomes known as luminous Nataraja. The ancient shilpins intuited this form and put forth their views on the luminous Nataraja. The form of Nataraja is not an imagined one and it is the first manifestation of the primal light. It is the foremost manifestation of the scientific form of creative force that occurs

when the innate energy of the Primal Existence gets itself released from the circumscription of the microbode. In sequence to this manifestation, the circling rhythmic movements or dances of light and sound take place.

Due to the explosion that takes place inside the microbode, an ordered and uniform array of radiant light rays spreads in all directions and it is such picturesque vision of the marshalled luminous rays is described as the Dance of Light or the Dance of luminous Nataraja. This is the traditional concept of atomic science centred on the explosion of atom into material form. There are innumerable concepts of science like this in the tradition of Vāstu. But under the condition where there is nobody to listen to or to know these concepts, they still remain in oblivion, facing the imminent danger of extinction. This is unfortunate and I am trying my best to eliminate this unfortunate state by my writings and speeches.

It was said earlier that the frequency of vibration of the Primal Existence is employed and expressed in the Image of Nataraja, and that a mathematical order or numerical expression is given in a concrete form. Some more points I want to set

forth here. The luminous Natarāja has been revered and adored as the Supreme God. Then, in that case, is it not rational and reasonable to hold that God Himself gets limited within a mathematical order, that God Himself is simply a numerical existence? This mathematical order is a systematic calculation of the manifestation or evolution of space-energy into spatial form. Therefore it is tenable to hold that all images and forms created based on this mathematical order are the logical and schematic expression of space-energy. Having logically and intuitionally found the core consciousness of space through inner vibrations and having found its evolutionary and functional phases, the ancient shilpins formulated a mathematical order based on those observations and rendered a fitting form to space-energy through the technology of Vāstu. All the concrete forms and patterns designed after this mathematical formula, permuted and employed in different ways, are basically the numerical expression of that formula. This is an explanation of the structural forms, from the stand point of intellectual analysis. Bearing such significance, even the blank lines and curves appear as meaningful symbols. The significant meanings and messages are symbolically represented by the

weapons and objects depicted as held in the hands of the images. These have been depicted as linear diagrams also in this tradition. It may be claimed that these linear diagrams are as expressive and meaningful as the word-forms. When the Primal Energy transforms itself into a mathematical form, the material transformations and evolutionary developments assumed by it are visualised, realised, and analysed. Only these evolutionary developments and manifestations have been indicated through the structured features of the Image of Nataraja.

The order or system which has formulated innumerable concepts of space- science is traditionally called Vāstu Dharma or Vāstu Mata. Mayan, the energetic Seer (drastā) and Sage (rishi) was the creator and the first formulator of this great order. Mayan was not only a seer and sage but also an unrivalled shilpin by birth. As such he was able to raise himself up through intuitions and experiences and to give a material or structural form to the space-energy. He made the Invisible as Visible and the uncalculable as calculable. Named after Mayan, this order became popularly known as Mayamata. His work enshrining the essential principles and concepts

of Vāstu science also came to be known as Mayamata.

In his immortal epical work 'Silappadikāram'. Ilango- adigal, while describing the gifted items, states: "These are the objects known for their exquisite beauty and charm, which have been designed according to the directions of Mayan". (மயன் விதித்துக் கொடுத்த மரபின இவைதாம்). The expression 'viditthuk- koduttha' (விதித்துக் கொடுத்த) is with deep meaning and authentic note. If it is seen against the background of what I have explained so far, I hope, it would be clearly seen that this expression (விதித்துக் கொடுத்த) denotes the orderly behaviour of divine energy which was formulated by Mayan. Mayan, as a great Genius, was endowed with supermanly powers. In his epic, Rāmāyana, Sage Vālmūki introduces Mayan as 'mahā tejasvi' and 'māyāvi', meaning 'endowed with supreme knowledge' and 'capable of effecting wonders' respectively. The Ramayana is claimed to be the 'ādi kāvya' (the first and foremost epic) in Sanskrit and the Silappadikaram is claimed to be the first historical epic in Tamil. The authors of these two great epics did not consider Mayan as a legendary person or a mythical being. I want to state

emphatically that even the Vāstu tradition which owes its origin to Mayan, never considers him as a legendary personage. Both the authors, ie., Vālmīki and Ilango have stated that Mayan was born in South India. By propagating and disseminating his own findings and principles of art and architecture through the length and breadth of India he attained the status of Divine Architect and National Artist. An account of his wonderful creations and contributions could be known through the Mahābhārata. He even crossed the oceans, reached the foreign lands and established there his inimitable system of Vāstu. This is evident from the Māyan civilisation of Mexico. We, the shilpins, who are hailing from the order and tradition established by Mayan, are sculpturing the divine image, strictly following the directions and mathematical formula given by him.

The Divine Image which is the basis and arch-typal for all other divine images is the Image of luminous Nataraja. It is this wonderful Image that fascinates the heart and draws the attention of our contemporary scientists and architects. This image, we call 'mūla silpa' and 'ādi silpa' meaning the basic or arch-typal image and the primal or original image respectively. All other images created after the

original image are called secondary images or replica (**bimba** and **pratima**). The **Vāstu Sūtropanisad** belonging to the **Atharva Veda**, states “**silpāt pratimāh jāyante**” — “All the secondary images known as **pratima** take their origin from the original image known as **silpa**”. This is a very cryptic statement which encapsulates in its subtle form all the matters I have put forth so far. According to the **Vāstu Sūtropanisad**, **silpa** means the most subtle and source-form of **Nataraja** who manifests of His own accord through the luminous thread or luminous consciousness. Obviously and by all reasons, this is the **Original Image**.

Keeping these views in our mind, let us resume the analytical view related to the cubical prism or microbode (**citravai**). The cubical prism, through its own rhythmical and orderly movements turns into rectangular structure and finally it gets itself doubled in its volume. The change in structure and increase in volume are for the enduring stability and everlasting pleasantness. To understand this point more clearly let us consider the modifications of sound.

There are seven notes in musical scale. Madhyama is the exact middle point of the musical line. We can observe that there are three notes before the madhyama and three notes after this, six notes in total. This is twice the number three. If we increase the frequency and go further we come back to shadjama i.e., the first note whose frequency is twice that of the shadjama of lower pitch. To express it in numerical measure, the frequency of the shadjama of higher pitch 480 is double the frequency of the lower one (240). In the same way, the frequency of rishabha of lower pitch gets doubled in higher pitch. Each note gets repeated in this way when the pitch increases. We get shadjama of lower pitch, shadjama of higher pitch, rishabha of lower pitch and rishabha of higher pitch and so on. This is the very nature of sound. We cannot alter this. This repetition is known as resonance. In the field of art, it is called rhythm: The vibration of light is also of same nature. The nature of the vibration of light and sound is to get repeated, to undergo rhythmical repetition. The emergence of light takes place first and this is followed by the emanation of sound. Likewise, consciousness (associated with light) occurs first in our inner space and speech (associated

with sound) occurs next. Sound goes through wave patterns and light goes straight.

Based on the calculation of repetitive process of light and sound, the height of the building is determined in the tradition of Vāstu. For example, there is a general rule in the Vāstu tradition that the height of a building should be twice its breadth. If the breadth of basement is 10 feet, the total height of the building should be 20 feet. The Vāstu tradition ascertains that the height arrived in this way is in total harmony with the natural order. If the height of the building is to be increased, the breadth should be increased or we have to adopt a particular technique, as explained in the Vāstu s̄astras. There is difficulty as well as the pleasantness of accomplishment in adopting this technique. We can observe how the musicians find it difficult to touch the higher and higher pitches, but once they do it they are applauded and praised. Their accomplishment instills an indescribable bliss in the heart of audience. This is an accomplishment which excels the natural order. (This is the case of excelling, not the case of contradicting). Even the shilpins who construct gopuras, vimanas, etc., are confronted with the difficulties in increasing the

height. The Vāstu s̄āstras themselves provide an exceptional rule or license, saying that, if need be, the height may be increased $1/8$ of the basic measure assumed or arrived at. What would happen if the height is increased further? Either the building would collapse or the charming appearance - eurythmy - of the building would be affected or nullified. Stability and eurythmy would be evidently seen in all the buildings constructed in such a way as to appear as a fine piece of musical rendering according to the Vāstu s̄āstras. The rule of proportionate measurement is applicable even to the human form. When we say that a particular person is of abnormal height, what does it mean? His appearance is not charming to the eyes and pleasing to the mind owing to the presence of impropportion in his form. The fundamental and main aim of the Vāstu science is to create forms and structures according to the natural order, to enable us live in harmony with the Nature and to make us experience Nature. Is it not relevant to say that dance, music poetry, architecture and sculpture are essentially re-creation and re-presentation of Nature. Nobody could deny this truth.

The cubical prism (represented as chitrambalam, space-house), through its orderly movements,

assumes the form of rectangular frame and inside this we see the dance of Nataraja, dance of the primal light-source, dance of Vastu. Chidambaram is related more closely to the science of Vāstu than to religion. This truth should neither be suppressed nor be forgotten. One more point I want to stress here is that the very basis of the art of dance is implicitly present in the proportionate measurements and structural features of the Image of Nataraja.

We have also born, endowed with features designed in a subtle way after the measures and form of Nataraja image. The differences in the form of human beings occur only due to the differences sustained by the subtle form designed after the form of Nataraja. All these differences are seen in external features only; not in the inner space. The spiritual energy which indwells is one and the same for all; it is identical in all beings; it cannot be changed. But the superficial differences in physical form are true; we cannot alter these external forms even. The frequency of vibration is the main reason for the physical beauty and charm. If the vibrations occur according to a particular metre or rhythmic pattern, then the manifested material form would be pleasant to look at. The vibration of inner-spirit should be

regulated and perfected to give rise to the emergence of beautiful form. Such regulation or perfection is, what we say 'the culturing of the spirit'.

All the living beings grow from the seed state to corporeal state based on vibrational measure only. Right from the inception of corporeal state, they attain further growth through vibrational energy. The energetic vibrations continue further and finally come to a complete standstill. If we look at these phenomenal activities, we could understand that only the vibrational energy-waves are responsible for the triple activity — creation, sustenance and dissolution. Modern science speaks of this vibrational energy as biological rhythm. This is a mathematical order of vibration occurring in all the living beings. In like manner, the space enclosed by four walls of a building vibrates rhythmically. That the frequency of such vibration could be increased or decreased employing a mathematical order - is the finding of Vāstu science which calls this vibration, spiritual rhythm. This spiritual rhythm could be regulated through the principles of Vāstu. By this regulation the inner beauty, inner structure could be set right. That is inner space could be made melodious and harmonious. The Vāstu science is very much

confident about such culturing process. But once born, for an embodied being, it would be difficult to set right the external features. Regulation or perfection could be possible in foetus-state itself, according to the science of Vāstu.

The charm and melody of inner vibration may be explained with an example of vina-instruments. If two vina-instruments, one tuned to shadhjama and the other tuned to pancama, are played, we would hear different notes. Being in disharmony, they would not be pleasing and melodious to our ears. If the string of shadjama- vina is tightened further, it would produce sequential notes such as ri, ga, ma, pa and so forth. If we set it to emit the note of pancama, it would induce other vina tuned to the pancama note to respond to it, even though it is kept unplayed. That is, it would make the second vina to sound harmoniously with it. How does this happen? By whom? A deep analysis would reveal the secrets of creation and of natural harmony.

In the shadjama-vina, there is a breath of sound known as melody. When played, waves of musical sound emanating from the shadjama vina undergo gradual increase in the quantum of frequency. As

soon as they reach the point of pancama, they induce other vina set in pancama. Waves of musical sound of these two vinas are in total resonance. The frequency of the vibration of the vina strings and their quantum are responsible for the resonance or the sympathetic vibrations of the vinas. Equality in numerical measure of the vibrations is responsible for the harmonious notes. The important point to be observed here is the role of numerical measure in effecting resonance. Formless consciousness is now rendered into a factual numerical existence! In the same way the formless self or God could be given a corporeal form, could be given body and breath! One of the proven theories of Vāstu science is that qualities themselves turn into visible forms, which are called qualitative forms or attributive forms. If the innate and essential qualities of the Supreme Brahman are known, then is it not possible to render an appropriate form to that Supreme Being, possible to transform the Supreme Existence into a numerical existence? There cannot be only one form to the Supreme Existence. Different forms may emerge as the reflections of the different qualities. We ascertain these forms by our intuitional realisation. We resonate with the Supreme Existence based on the

harmony of forms, like the two vinas which resonate based on the harmony of sound.

Even our body is like a vina-instrument. Body is also called 'sarīra-vīna' (sarīra means body). In the heart-cave of the body there is inner space and inside the inner- space there is the vibrant thread of consciousness or the vibrant luminous thread. It is this thread of consciousness that functions as the string of sarira-vina. The vibrations of this string turn into spiritual form, relevant to them. Contiguously, the same thread of consciousness assumes sound- form. Just like the vibration of sound assumes the form of nāda, even so the vibration of light assumes luminous form.

In fact, it is only after the emergence of **luminous form** (ஒளியாலான வடிவம்) through vibrations of the thread of consciousness that the sound-form emanates through the vibrations of sound-atoms. When a person tries to express the manifestation of luminous form as seen by him, sound turns into sound-form through vibration. Tounge serves as the instrument of expressing the sound form; so also hand serves as the instrument of expressing the luminous form. These phenomena

take place both inside and outside our being. All the evolutions that take place inside are only by means of consciousness; they are the visions structured by consciousness and light. All those which manifest externally are the concrete and tangible forms, or the material forms. The form of Nataraja is the original and the primal form manifested at the very first phase of emergence based on consciousness, vibration, vibrational waves and their measures or mathematical order. The image of Nataraja is the form effected by the vibrational waves of space. There are many more subtle principles related to the form of Nataraja which I reserve for another occasion.

The experimental form taken for investigating the secrets of the creative activity of space is the human form only. This means both the human form and Nataraja-form are congruous and identical. The resonance and reflection of Nataraja-form take place in human form and those of human form take place in Nataraja-form. This is the view free from doubt and discrepancy held in the tradition of Vāstu.

If the divine images are sculptured in accordance with the vibrational measures, then, it is

evident, these images would shine forth endowed with proportionate features, charm and breath, being comparable to the musical forms. The vibrational waves that emerge from the divine forms are very fundamental and resourceful. The conscious waves issuing out from us may be concordant or discordant with those waves-divine. The waves which are in lower quantum may be increased and the waves which are in higher quantum may be decreased so as to be in harmony with the waves of the Divine forms. Strictly speaking, what we call spiritual discipline is the attuning of our wave-quantum. By this discipline, one could be able to experience the Bliss. The fitting place for such discipline or harmonisation and blissful experience is the temple. That such harmony and bliss could be experienced even in a house — is the exact message being revealed by the temple of space-science, Chidambaram, inside which Lord Nataraja dances. Let His dance continue for ever. It is the dance which signifies the creative and devouring role of the great Time, which signifies the cyclical order (சமீப) of Time.

Let us turn our attention on Sri Ranganatha. Let us wake him up from his yogic slumber. We have

seen earlier that space is energy-filled and it is of the nature of consciousness; that it is first and source-element in the series of the five gross elements. What is the last and ultimate element, solidified material form, in the series of five mahā-bhūtas? Is it not earth? The traditional space-science, according to Vāstu, begins with space and ends with earth. According to the scientific theme of Vāstu, space itself turns into earth. There is energy in space and energy in earth as well. The two energies are one and the same; one and the same consciousness. Earlier it has been told that this energy is a substance in its subtlety. Earth which is seeded with subtle but most powerful energy becomes known as Vāstu and the energy itself seeded inside the earth becomes known as 'purusha' and according to the Vāstu tradition, it is the earth-energy that is called Vāstu purusha. This Vāstu Purusha is also of the nature of being in vibrant state through his own consciousness. Penetrating the object which gets integrated and identified with himself, he makes it pulsate. He keeps himself in perfect resonance with that pulsation. This is what the science of Vāstu tells us.

Man has to live in harmony with the pulsation of earth-energy or Vāstu purusha. Earth is of the same nature as of the space. Both the earth and space should be brought together and kept in union and for the purpose of effecting this union, the tradition of Vāstu has got an operative mathematical formula. If there is no such gross element as the earth, where could we live? Where could all the living beings have their existence and movement? Therefore Mayan, the Vāstu Vijnani, sets forth another important theme that Earth, by virtue of being the very basic support of all things, is the primal and dominant Vastu (Bhūmih, pradhāna Vastu syāt).

भूमिः प्रधान वस्तु स्यात्

The Bhūmi Purusha or Vāstu Purusha, may appear externally as calm, quiet and undisturbed. But in reality, he is a great force, great purusha, ever-vibrant, ever-energetic. It is only this Bhūmi Purusha, the vibrant and energetic, the Earth, that we call Vishnu. In other words, Lord Vishnu is none other than Vāstu Purusha. To understand this point, we could observe even today a ritualistic process prevailing in Srirangam Temple in which Vāstu Purusha is invoked and offered seat in the heart of

Lord Rangarāja. We are indebted to the priests of that temple who are preserving and following this important practice, having understood its significance.

Earlier I told that the image of Nataraja, being space-energy is to be made of metal only. Similarly there is an injunction in the tradition of Vāstu that the image of Vishnu should be made of seasoned earth only in order to symbolise that Vishnu is earth-energy. Even after a lapse of thousands of years, this is in practice even today. Since earth is gross energy, being in perfect visibility. Vishnu whose image is made of gross earth is fittingly praised as “the visible God”, the evidently manifest energy. The image of Vishnu made of earth should properly be painted. This is also in practice. Since it is made of earth, this image does not give room for frequent mobility. That is why there is another rule that the image of Vishnu should be stable and immobile. The image of Vishnu is significantly called in different ways ‘dhruva bera’, ‘sthira bera’, etc., meaning the stable image. To indicate this stability or immobility, Vishnu is shown in reclined posture as we see in Mamallapuram Temple where Vishnu is called jala-sayanap-perumal in the sea-shore temple and is called ‘sthala-sayanap-perumal in an adjacent temple

inside the town. These two temples and images have been traditionally structured and they are very ancient.

These temples and images are not mere symbols. They have been created by means of Vāstu technology to exist and function as the vibrant living organisms. This point I want to state with much stress and emphasis. Since these are sculptured and constructed strictly based on a mathematical order related to cosmic creation, they are with inspiritedness and fullness of perfection and grandeur. If they cease to be mere symbols, then all the rituals, offerings and other worshipful activities would become purposeless.

Lord Vishnu is specifically called 'antaryāmi' (meaning, the indwelling controller), since He is not only the energy contained in the earth but also the Vāstu existing in all the worldly objects and in us. The image of Nataraja is the quintessential form of space-principle (ākāsa tattva) pertaining to Nataraja and the image of Vishnu is the quintessential form of the earth-principle (prithvi tattva) pertaining to Vishnu. They are the scientific images, sculptured thousands of years ago. So also the temple enshrining

Nataraja and the temple enshrining Rangaraja are the very ancient temples representing space and earth respectively.

The science of Vāstu never considers the images and structures created by it as mere symbols, since it renders them as the veritable ensouled beings. What is still more wonderful is that this tradition creates not only the houses but also all the objects under their shadow to appear as living beings, as objects with fullness of life. For the purpose of such creation, I told there is a mathematical device to employ. Only by making use of this mathematical device the Vāstu Science has given us inspirited creations and breathing substances. It is capable of effecting more and more such wonderful creations.

Having intuitionally experienced the conscious-primal-being, which is invisible but not inactive, having measured it through calculations of the vibrations of consciousness, these images are sculptured by employing the mathematical measure. Only based on this score, these images are considered as the real reflections of consciousness. Only by means of such mathematical measure, the same conscious experience is created in the minds of

those who see the images. Just as the musical feelings and musical forms shine forth as conscious forms only, as the forms based on mathematical order and as the forms capable of instilling the same consciousness in the minds of audience, even so that temple of Chidambaram and Nataraja Image — the temple of Srirangam and Rangaraja Image shine forth as the solidified conscious forms, as the inspirited living forms. What we hear as music through ears, that we see as forms through eyes. It is the aim of the tradition of Vāstu to make the invisible and transcendent being appear just before our very eyes as visible and immanent. Therefore the dictum “That itself becomes this” is actually demonstratable through the principles of Vāstu. This important view “that itself becomes this”, because of its subtlety, has been for a long time a mysterious secret of Indian sculpture and architecture. Only because of this unique significance Indian sculpture and architecture appear as entirely different from the other sculptural and architectural traditions of the world. Not knowing this significance, there were people who ridiculed Indian sculptures as barbarous; there were people who even considered them as mere playful things. Vaishnavism, having understood the

supremacy and significance of the images made by the traditional shilpins, appreciates them, extols them and reveres them as the veritable form of God. Contradiction is seen only in the concepts and modes of devotion; not in the view related to the cosmic being which is transcendent. Image worship is not despicable or deplorable. Image worship is the highest scientific form of worship which wipes away all the differences and contradictions, which enables to see face to face the one which is beyond the reach of sight and speech, which kindles devotion and stabilises it. This is the greatest victory of the science of Image. As a traditional shilpin, well trained in principles and practice, these points I want to place here with all certainty.

All the objects of the universe have emerged, based on a particular mathematical order. We also, being a part of the universe and belonging to the part of the universe, have taken our form based on the same mathematical order. Musical forms are also created through this mathematical order only. So also, even sculpture and building are created by means of the same mathematical order. From a different stand point I want to make it clear that sculptures and temple buildings are not mere symbols

or memorials or artistic creations, or intellectual creations. For this, I want to state some more important points on the significance of images and structures created through the tradition of Vāstu.

In the tradition of Indian Art, poetical, musical and dance forms are considered as the expression of Divine Form. Of these three, poetry and music are the inspiring and inspirited sound-forms. Dance is the one in which the features of both sound and light are present. Tradition holds that sculptural form and architectural form are essentially musical forms subject to visibility. About architecture, there is a specific saying that architecture is frozen music. In the tradition of Tamil also, it is widely said that an architect constructs a house in the same way as a poet composes a poem. The meaning implied here is that one and the same mathematical order is employed for composing a poem and constructing a house. Stone-form is used in building and sound-form is used in poem. There is a five-fold grammar in Tamil, comprising letter, word, content, metre and beautification. The fivefold grammar is one and the same for sound-structure (poem) and the building-structure. Both the sound-structure and the building-structure indicate only one content or theme

which is known by hearing and seeing respectively. I could show an example for this, inviting pointed attention of the readers. Recently I sculptured an innovative image for Tamil, representing it as Mother-Tamil. Those who did not have enough time to see it leisurely and understand its significant features, asked me as to how such image could be made for Tamil, since it is only a language. I said: "We all have experienced the charm of Tamil, mellifluousness of Tamil, greatness of Tamil, fruits of Tamil, through hearing the sound constructs. If you want to experience all these features, visually better look at this image of Tamil which expresses all these". I continued: "This is a sculptural poem, composed according to the traditional grammar. This would even speak to you, the conscious waves emerging from this would attract your vision and mind. This is a live form".

It is the view held by the tradition of Vāstu that a poem governed by the rules of traditional grammar is a living organism. It is its nature to become like this. To become a living organism, we are not responsible as its composers, but its own grammar itself is responsible for that. I hope this point would be clear to those who compose Tamil

poems according to the traditional grammar. Tamil poems and Sanskrit poems are basically spirit centric and spirited sound-forms. To be spirit-centric forms, a particular mathematical order and grammar are seen in the tradition of Vāstu. Based on this, it may appear that art-field is related to the science of language. May be so, because the science of language is related to the language of aural forms and the science of art is related to the language of visual forms. These are two streams of expression of one and the same consciousness. Of these two, it may be held that the language of visual form is superior to the language of aural form. Because, what cannot be expressed through words may be vividly framed and expressed through painting and sculpture. This is the significant feature of the language of visual form, not available to that of aural form. Moreover, do not our feelings of blissful experience get amplified when we see in visual forms what has been expressed in aural form or words? Our ancient silpaic rishis have given us an authentic grammar, ever relevant grammar — the grammar of form or structure (porul-ilakkanam). Therefore, all those which are structured or composed according to the principles of Vāstu are essentially living organisms. They are the ensouled constructs. They are alive to

the core as much as the natural beings or existents, since their basic grammar is the grammar concerned with the creations of Nature. I hope, once you understand well this secret efficacy of grammar, then you will not hesitate to accept the Image as a living organism, an active form fit for worship.

Among the art traditions of the world, the only art tradition having an ever-relevant grammar is the Indian art tradition. There is no exaggeration in this point. Grammar of a language is much essential to articulate our conscious-thought in an orderly way and to make others understand and experience it. In the same way, an authentic and relevant grammar is needed to enable to see the same conscious thought in a visual form and to experience it. The indicated (meaning) should not be different from the indicator (word). If the word is one and the content or meaning is different, what would happen? Therefore, at a time when grammar was written for words and word-patterns, there was also an indispensable need to write a fitting grammar for form or structure also. The grammarian who wrote such grammar on form and structure, grammar of visual forms, was Mayan, the Vāstu Vijnāni. It was

this grammar formulated by Mayan that came to be called Vāstu sāstras which are even now studied and preserved by the traditional shilpins. Vāstu sāstras, also known as Silpa sāstras. Vāstu and Silpa are the two names indicating one and the same meaning.

Since the Vāstu sastras are grammatical works dealing with forms, we cannot see directly any description or references to the Bruhadiswara Temple of Tanjore or Gangaikonda Soliswaram or the stone-temples of Mamallapuram or building and houses or cities and towns of India. This is just like we cannot see references to the Kamba Ramayanam, or Manimekalai or Silappatikaram in the Tolkappiyam, the ancient grammatical work on Tamil. But this much be said that only the grammar, as found in the Tolkappiyam has taken form such as Silappatikaram, Manimekalai and so forth. Likewise, temples, sculptures, cities, towns, houses, hall, etc. had taken shape according to the grammar of Vāstu sastra, the grammar dealing with the multifarious forms of the Primal Existence (Vāstu).

We speak of threefold Tamil comprising poetry, music and dance. There is a kind of grammar in

Tamil known as porul ilakkanam (grammar on content and context, form and structure). In the tradition of Tamil, for which there is 'porul-ilakkanam', there could have certainly been two more kinds of Tamil-sculptural Tamil (சிற்பத் தமிழ்) and architectural Tamil (கட்டடத்தமிழ்). Where have gone these two kinds of Tamil? Why are not they found either in literary usage or in common parlance? Nobody, no institution meant for Tamil development has bothered about it. Even the shilpins who are more related to these two Tamils are not worried about this. Under such circumstances, I want to state that only the Silpa sastras which are now in extant are to be considered as the grammatical works on form and structure (பொருள் இலக்கண நூல்கள்). It is in sculpture and architecture that we could see the real and undistorted reflection and echo of cultural forms and melodies of the Tamil soil. Then in this case, it is very pertinent to put in wider usage the appellation 'pentadic Tamil' or fivefold Tamil (ஐந்தமிழ்) instead of perfunctorily repeating the usage 'threefold Tamil' (முத்தமிழ்), since both the sculptural Tamil and architectural Tamil stand structured before our eyes!

The time-units define and determine the beats and metres of a poem, as far as the Indian languages are concerned. This, we could specifically see in Tamil and Sanskrit. When we closely observe how we are giving a perfect form to our thoughts conceived in inner-space we could easily understand the wonders effected by the time-units which control the flow of words, set them in a melodious order and render a beautiful and charming form to a poem.

If a theme is well settled in our heart to turn out into a poem and if the rhetorical embellishments become added to it spontaneously, then the poem attains a charming composition and form. For this beautiful composition and structure, the time- unit or time-measure functions as a shilpi. It is the Time factor that effects a beautiful and rhythmic form to a poem, just as the shilpin is the creative factor for a sculpture. So can we say that Time itself is a Shilpin? Yes, it is so. In inditing a poem, a potential mathematical system functions in a concealed way. Synoptically we call this mathematical system, the Time. In the field of poetry, music, dance, sculpture and architecture, traditionally we call the time unit-Tālamāna (time-measure). Rhythm is nothing but Tālamāna. Time itself creates sculpture and

architecture in the same way as it manifests into music and dance. Tālamāna is the most scientific aspect, science of proportion and duration, treated in the Vāstu sāstras. It is the efficacious energy of Tāla, that is called Kāla-matra, Kala-purusha and Tāla purusha in the tradition of art and Vāstu purusha in the tradition of Vāstu. The mathematical order which renders a fitting and rhythmic form to poem and musical composition is Tālamāna itself. The melodious tunes, solely dependent on musician's skill, give an additional dimension to musical compositions. In the case of poetry, tālamāna takes the form of an orderly and rhythmic flow of words which constitutes the very basis of rhythmic poem. The content, known as meaning, is the very soul of a poem. Word is called 'pada' or 'vāk' and meaning is called 'artha'. Conjointly we use the word 'padārtha' (pada + artha). The univalled Royal poet Kalidāsa states 'vāgartha' (vak + artha). He compares vāk to the cosmic Mother, Pārvati and artha to the cosmic Father, Siva . Could you realise or notice the emergence of the art of sculpture in this analogy?

'Sabda' is a Sanskrit word synonymous with the word 'Oli' (ஒலி) in Tamil. Sabda, in which all things and all words are contained in an unmanifest way -

contained in a seed form - is extolled as Brahman in the Vedic texts. The Vedas call it 'Sabda Brahman'. I have explained earlier how sound turns into aural and material forms.

Now, we have to consider the validity and essentiality of 'object'. If there is no such thing as object, there could be no place for the emergence of word. The existence of object precedes the emergence of word. We see objects around us and create them around us. All these objects, along with their respective words are contained in another substance, worthy of merit and greatness. This is known as Brahman. The tradition of Vāstu appropriately extolls it as 'Artha Brahman'. Another name for this is Parabrahman. Artha Brahman is also called 'Vastu Brahman' by the shilpins.

There is an Upanisad by name Amrtabindu, belonging to the Yajur Veda. It states

*"dve brahmani veditavye sabda brahma paramca yat
sabda bramhani nisnātah param brahmādhigaccati"*

(Amrtabindu: 17)

द्वे ब्रह्मणी वेदितव्ये शब्दब्रह्म परंचयत् ।

शब्द ब्रह्मणि निष्णातः परं ब्रह्माधिगच्छति ॥

“There are two Brahman. One is Sabda-Brahman and the other is Parambrahman. One who is skilled enough in realising the nature of Sabdabrahman, is capable of knowing Parabrahman”. It is not clear that what is denoted here is as Parabrahman is actually Vastu Brahman or Artha Brahman? The Vedic texts frequently states “Vijnanam Brahma”. The word ‘vijñāna’ here is nothing but vijñāna of Vāstu.

The same Vastu Brahman is called ‘Substance in its subtlety’ or ‘substance in its wholeness’. Since an object indicated by a word and the word originated by the presence of the object are identical, I prefer to denote both the object and the word by the word ‘light’. All those which are ‘seen’ are indeed luminous words (ஒளிச் சொற்கள்) and all those which are heard are aural words (ஒலிச் சொற்கள்). It is the same luminous substance (ஒளிப் பொருள்) that is recognised as ‘atman’ in inner space and ‘paramātman’ in outer space. Such realisation is what the enlightened sages describe as ‘awareness’. Since this awareness leads to the supreme state of Brahman, the Vedic texts declares; ‘prajñānam brahma’ - Therefore it is clear and certain that the light and awareness (prajñanam) are one and the

same. This light is variously called 'sakti', 'Kāla' (force of energy), 'energy' and so forth. In the tradition of Vāstu, it is called 'vastu'.

Once we understand that this light exists of its own accord, exists without being propped up by external forces, and that the same light penetrates into all sound-forms (ஒளிப் பொருள் and shines forth as imprtite, pervading eternally and every where, we become the knowers of Brahma-jnana or Vastu-jnāna. Does this not, this spiritual discipline, appear so simple? Yes. This simplicity is because of the workings and wonders of the tradition of Vāstu. By this knowledge, we could realise well that we are within Brahman and Brahman is within us. An inward vision or contemplation is necessary for this. Otherwise there would be no difficulty in understanding.

Poetry, music and dance - all these three originating from sound- space, are related to sabda-brahman; Sculpture and Architecture, originating from material space are related to artha-brahman. These two streams, i.e., arts related to sabda-brahman and arts related to artha-brahman have been in existence in our country from time immemorial. But this significant fact is not known

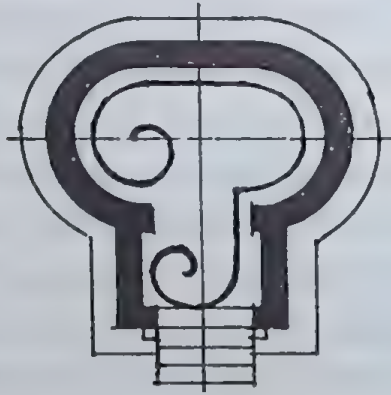
to the public in general and to the younger generation in particular. If they understand this, the supreme status, recognition and support being given to poetry, music and dance, belonging to Sabda-Brahman would be extended in the same measure to the sculpture and architecture also, belonging to Vastu Brahman. I hope so. The artists and shilpins belonging to the tradition of Vāstu have earned their exclusive reputation, which is stable and real. How did this happen? Because, they have rendered form to the Eternal Truth and established it firmly in this soil. Since there is no support or recognition for the contemporary shilpins who safeguard the values of artha-brahman inspite of their impeded sources I gave vent to my feelings in this strain. Poetry, music, dance, sculpture and architecture-constitute what is known as panca-marabu or the pentadic tradition. Out of these five, the last two, namely sculpture and architecture have now been segregated. They should be integrated into one single whole. Then only we could be in a position to say that the pentadic tradition (பஞ்சமரபு) which is pristine and popular is being safeguarded, nourished and preserved. The very existence of Indian culture is rooted in this pentadic tradition only.

"Only science should be religion. Then only we will be able to experience the core of religion" - Einstein told thus. Our tradition did recognise this point even thousands of years ago and to put it into practice, our ancient shilpins built Chitrabalam and Srirangam temples. These two temples have been preserved well without giving room for deterioration. In order to protect and preserve the Srirangam temple there is jala-durga (water, as protective fort) in the form of river Kaveri, and there is sila-durga (fort built with stones) in the form of seven enclosures (prakaras). Similarly, to protect and preserve the Chitrabalam temple, there was vana-durga (forest, as the protecting device) in the form of tillai-forest and in addition to this there is ānma-durga (living force as the protecting factor) in the form of dikshitas, who were once 3000 in number. Our ancestors had duly played their role in preserving these temples with their significant features kept in tact. It is our duty to revere them and adore them, in gratitude and appreciation.

The last in the series of evolution effected by OM - the foetus (விண்கரு), through its upsurge and splits, is the material substance known as earth. Since OM is popularly and significantly called

pranava and it is the ultimate source of earth, the garbha-graha of Srirangam temple is known as pranava- vimana or omkara vimana. The conjoint structure of garbhagraha and mukha mantapa of Srirangam temple presents exactly the form of Om-letter. The vimana of this temple has been built in an elliptical form. According to the science of sound and that of Vastu, every letter is a visible form of both light and sound which surge above, evolve and proliferate. Mayan states:

“ஒலி ஒளிப் பொருளாய் ஒங்கும் எழுத்தே”



OMKĀRA VIMĀNA of SRIRANGAM (Plan)

"Letter emerges as the composite structure of sound-form and light-form". The vimana of Srirangam temple shines forth in the form of OM,

which is actually the visible form of the union of OM-light and OM-sound. Like the curves of omkara seen in the image of Valampuri Vinayaka, the omkara vimana of Srirangam temple has been built with its curves turned rightward.

There are substantive evidences to maintain the view that both the temples at Chidambaram and Srirangam could have been simultaneously built by one and the same scientist belonging to the tradition of Vastu. The meritorious credit of presenting science in religious form goes to that scientist. Let us now have a comparative vision of Nataraja and Rangaraja against the background of space and earth and understand the significance of Vastu science which has done wonders on this earth making use of its complete knowledge of space.

1. Both the temples at Chidambaram and Srirangam are south-facing. Both are of same age, and ancient (Tradition has it, that these two were, once upon a time, in the southern hemisphere, south of the equator. When this region got submerged in ocean, these temples were re-built in a different area of the northern globe. Sivapuram was the name of the old town in which original Chitrambalam was built. Another name for this was Tillaivanam. The

town, Sivapuram, was within the forest of Tillaivanam.

2. Nataraja is always dancing; Rangaraja is in a calm and serene reclining posture.
3. Outer space or Supreme space is the abode of Nataraja ; inner space of the living beings and of objects of the world is the abode of Rangaraja.
4. The stage for Nataraja is the subtle space or subtle body ; the stage for Rangaraja is the gross space or gross body.
5. Nataraja manifests Himself as the universe. Rangaraja manifests Himself as the objects and beings of the universe.
6. Nataraja is subtle light or subtle substance. Rangaraja is material sound or gross substance.
7. Nataraja is subtle energy ; Rangaraja is gross energy.
8. Nataraja is energy with matter ; Rangaraja is matter with energy.
9. Nataraja is pervading all places (pervasion in space) Rangaraja is pervading all the objects. (pervasion in matter)
10. Nataraja is macrocosm; Rangaraja is microcosm.
11. Nataraja is Vastu ; Rangaraja is V̄astu.

12. Nataraja is Vastu purusha ; Rangaraja is Vāstu purusha.
13. Nataraja is always imaged of metal; Rangaraja is always imaged of earth.
14. Nataraja dances within space-atom; Rangaraja vibrantly exists within earth-atom.
15. Nataraja is the presiding deity of Mandukapada Vāstu mandala; Rangaraja is the presiding deity of Paramasāyika pada Vāstu mandala.
16. Nataraja gets himself circumscribed within square; Rangaraja is reclining within circle.
17. In Einstein's equation, $E=mc^2$, Nataraja is the subtle energy, E ; Rangaraja is the material energy, mc^2 .

Let us go into some more details and expositions related to the space and earth according to the science of Vāstu. It was seen earlier that space-substance (விண்பொருள்) itself turns into material or earth-substance (மண்பொருள்). Space itself changes into earth. But earth cannot have its existence without being vitalised by space. To be always vibrant and energetic, earth should be in constant contact with the space. All the living beings have their active existence, only by deriving the energy needed for their growth from the space.

As if to illustrate this point, the principal image has been installed in the sanctum sanctorum of Sri Anantha-padmanabha Swami temple in Tiruvananthapuram. The image is in reclining posture and its right hand has been sculptured in such a way that it touches the crest point of Sivalinga installed adjacent to it. This shows that the earth subsists by deriving energy from space (earth represented by the principal image and space represented by sivalinga). You would be surprised to know that the same principle has been depicted in Srirangam temple also. Here, Rangaraja is in reclining posture, his face exactly looking at the gold-plated dwajasthambha. There in the north side of the dwajasthambha, where Rangaraja looks at, is the image of Nataraja! This also shows that the earth (as Rangaraja) is looking forward to space (Nataraja) for its subsistence and stability.

There is another scientific concept that is implicitly shown in the image of Nataraja and that of Rangaraja. In the image of Nataraja, we see drum being held in the upper right hand and fire, held in the upper left hand. Since Siva is the supreme space itself, the essential qualities of space, sound and light, are represented by drum and fire

respectively. The scientific truth depicted here is that creative activity starts from space (left hand-fire), becomes luminous, circles from left to right (i.e. clockwise direction) and becomes sound (right hand drum). Does not Nataraja, circles from left to right when he dances? Only to indicate this, His left leg is raised and curved rightward. As a mirror image of this form of Nataraja, we see the image of Rangaraja in which conch (sankha representing sound) is held in the left hand and the blazing wheel (cakra representing light) is held in the right hand. The principle depicted through the image of Rangaraja is that the whole universe is the mirror image of the Primal Substance (முதற்பொருள்). This is the actuality of the echo of the sound and the reflection of light. The earth-substance (மண்பொருள்) is the mirror image of space-substance (விண்பொருள்).

At this point I want to highlight an important concept which has not so far been touched or explained by the scholars and religionists. In fact I did not want to deal with it here but, as I have told earlier I feel that some unseen hand is leading me in this aspect and directs me to launch upon this important matter, related to, what is known as 'the Reverse-Dance' (மாறுகால் தாண்டவம்).

In the Pārameswara Samhita, upon the basis of which the temple of Rangaraja is said to have been built, we could see elaborate details concerned with the ritualistic processes but we cannot see any detail related to the plan of the temple or to the exact principle behind it. That is, we cannot see those matters that are related to the constructional process of Vāstu. Likewise, either in the Pantanjali puja-paddhati, which codifies the ritualistic proceedings of the Chidambaram temple or in any other work on that temple, we cannot see the scientific and technological principles of the temple of Nataraja or Chitrambalam. Under this context I could say that both the Tirumantiram and the Unmai Vilakkam, written by St.Thirumular and Manavacakam Katantar respectively, are worthy of appreciation, since they throw some light upon the concepts of the Chidambaram temple. Since the basic principles and the details of structural plans of these two temples are set forth in the Vāstu sastras, I was able to penetrate into the structural details of these temples and to understand their scientific and technological significance. Only on this basis I am obliged to accept the view propounded by my predecessors that these two temples are the most

original and science-based temples. In a place called Tiruvenkadu in Tanjore district, there is a Chitrambalam-house dedicated to Nataraja. This is constructed of wood and stone, in a perfect square-design. There is a note of information that the old-structure of this ambalam, built traditionally, was rendered into square form when it was renovated. It is upto the scholars to judge the correctness of this information.

Only these two temples are being considered as the most important and principal temples in Saivism and Vaishnavism. What is significant and noteworthy here is the worship of sound and light. Since the building or ambalam / arangam itself is held to be the fitting object of worship, our predecessors used to say that this kind of worship is the core of the 'religion of temple' (கோயிற்சமயம்). 'Religion of Vāstu' (வாஸ்து சமயம்) is also another name for this, since Vāstu itself is considered as temple. To drive home this point, in our tradition, there is a direction which states that the knower of the science of mantra should consider the building as the embodied energy or purusha and worship it. (prāsādam purusham matvā pujayet mantravittamah). Even now we could observe that the pouring and

sprinkling of consecrated water (கும்பாபிஷேகம்) on Vimana, gopura, hall etc, always precedes that over the images installed inside.

Nowadays, worship of 'one-god' is liked and stressed by the Indians living abroad in order to be free from religious and such other distinctions.

There is plausible reason for such an emphasis on 'one-god' worship. These Indians who normally live in solidarity, peace and fraternity, often get confronted and disintegrated when the matter of building a temple and installing an image inside that temple are discussed. To which God - either Siva or Vishnu - the temple should be dedicated? Of which God - either Siva or Vishnu - the image should be made and installed? - these questions haunt their heart and mind and finally their friendship and fraternity get vitiated. These were the incidents which grieved me much. "What is the use of your Vāstu sās̄tras if you are not able to make us worship one deity, if you are not able to construct a temple for such worship ?" - They ask these questions and continue: "Can you not arrange for a specific worship of one particular God, based on a simple digest of variety of processes of worship enjoined in the

Agamas?". For those who ask these and long for a wider and effective practice of "one-god" worship, I would like to state, with a deep sense of responsibility and concern and as a man privileged enough to function as a Vāstu Vedin in this birth, that it is enough to build a temple for Nataraja and worship sound and light. By this time you could have well understood that the temple building or ambalam itself is Vishnu or Vāstu and that Vastu itself becomes Vāstu. Therefore, those who are very much intent in one-god worship would clearly see that in Chidambaram temple, is shown the oneness of Siva and Vishnu. They would not fail to notice that in Chidambaram temple both Siva and Vishnu have been depicted as scientific existence. This is the original state of science itself presented as religion. The most supreme effect of the science of sound is the manifestation of musical forms (இசைவடிவம்) Likewise, the most supreme effect of the science of light is the manifestation of sculptural and architectural forms, which are actually the visible musical structures. (They are frozen music). Bhakti is 'to be in oneness with the spiritual experiences and awareness'. To accomplish this oneness and awareness, a temple building is built according to a

mathematical order owned by the tradition of Vāstu. This point has already been discussed. Here, based on this point, I want to place it for your perusal that for the integrated worship of Vastu and Vāstu, worship of only-one god, it would suffice to have ambalam and Nataraja.

About Mayan, the originator of the tradition of Vāstu science and about his important works, much has been told earlier. He was extolled as a great shilpin, a great poet, a great architect in the Ramayana and the Mahabharata in Sanskrit and in the Silappatikaram and Kamba-Ramayana in Tamil. One more point that has come to light with much authenticity is that the same Mayan was the author of Surya Siddhanta, the ancient Sanskrit work on astronomy. But, inspite of these merits, what is despicable is that no Indian scholar has taken effort to project him or his contributions in proper perspectives.

Like Mayan of Bharat, there was one Māyan in Mexico, as the progenitor of Mexican civilisation. Even though the scholars of the West ascertained even hundred years ago that this American Mayan was an Indian, scholars of our country did not evince

interest on this point even a little. In the meantime, so many American scholars have produced many research works on Māyan civilisation. One book, titled "Māyan Factor - path beyond technology" written by Jose' Arguelles is worth mentioning here. We could see evidential scientific truths and facts more in this book than in any other works.

I am benefitted much by these researches. Even from my early days, I have been thinking on Mayan of India and Māyan of Mexico and I have noticed much similarity between the architecture of Mayan and that of Māyan. I presumed that these two great men could have been one and the same. To make this presumption an ideal truth, scientific and technological evidences are available in plenty in the above mentioned work, 'Māyan Factor'

Two strong evidences I would notice in Māyan civilisation. I was enthralled to see them even in the Mayan civilisation of India. One is a book dealing with Chidambaram which is called 'silambalam' in Māyan language. The other is the Māyan calendar which may be considered as the Mexican version of Vāstu Purusha Mandala which is one of the important aspects of Mayonic Science. Is this not a

striking similarity ? Most of my writings are centred on this Mayan - Māyan relationship and identity.

Recently, an incredible and astonishing event is taking place in the sphere of Indian religion. The Indians living in Mauritius have launched themselves in a great and meritorious deed. They have undertaken the brilliant task of bringing the Chitrambalam temple belonging to Nataraja, the subtle energy and the Temple of Omkara vimana belonging to Rangaraja, the gross energy under one canopy and building them so as to be south-faced as in Tamilnadu. They are re-establishing the old scientific principle in that ancient land. They are to complete this task within two years. Bringing the temples of Siva and Vishnu in one complex, they are to proclaim the validity and relevance of the traditional science of Vāstu. I would say this is the beginning of the worship of 'one-god' which I prefer whole heartedly. In Thyagaraya-nagar, Madras, a Siva-Vishnu temple is gaining popularity. In the beginning of the construction of this temple, many persons opposed such venture. But now the attempt of installing Siva and Vishnu in one complex is appreciated much. Such construction of temples of Siva and Vishnu in one complex is indeed an event

of historic importance. Since this is an integrating event that has appealed to my mind very pleasingly, I preferred to build Siva-Vishnu temples in many a place especially abroad, and with all humility I want to state I have gained ennobling success in this regard. On this ground, I have been given a nick name also - the father of Siva-Vishnu complex. So many Siva-Vishnu temples have been built now in America and both the Saivites and Vaishnavites walk on the sacred path of devotion hand in hand. What is the benefit for me, you may ask. The great and devoted persons living in America, who were responsible for the construction of such temples, who have realised the purity and relevance of the science of Vāstu conferred upon me the titles of 'Vāstu Vijnāni' and Vāstu Vēdi. This, I could say, is the social recognition accorded to the scientific tradition of Vāstu.

Apart from the scientific construction of ambalam and arangam, i.e. Chidambaram and Srirangam, which solidly adumbrate and stabilise the principles of space and earth respectively, our predecessors have also given representative forms to the principles of air, fire and water. There are three temples in South India famous for their scientific

concept related to air, fire and water. The sacred place (sthala or kshetra) for the element air is Kālahāsti; the sacred place for the element-fire is Arunachala or Thiruvannamalai and that for the element, water, is Jambukesvara or Thiruvanaikka. (Of these three, both the temples of Jambukesvara and Arunachala are big temples each with five enclosures. For the temple of Kālahasti, there is the possibility of evolving into such a big temple, though it is not so big as the other two. There is water current welling inside the sanctum sanctorum of the temple of Jambukesvara, signifying the fact that it is the place of water. Similarly, the lighting of ghee-lamp of enormous size at the top of the Arunachala or Annamalai on the occasion of Kartika festival signifies the fact that it is the place of fire. To depict that Kālahasti is the place of air, our ancient shilpins had devised a subtle technique inside the sanctum sanctorum. They had made provisions for two lamps - unextinguishing lamps - whose wicks are always kept to shed light. The flame of one lamp is always flickering because of air flow inside the cell. The flame of other lamp, though it is kept very closely to it, shines forth without any flicker or flutter. (This constant and unflickering flame denotes

the vibrant stillness of the Brahman). Thus, by means of two lamps, our ancient shilpins had very aptly shown the significance that particular place pertaining to the element, air. Our ancient traditional scientists, shilpins, have built huge architectural constructions to keep alive the subtle concepts of science and to enable the people derive spiritual comforts through them. Not only this. Not according much credence to physical science, they realised the importance of cosmic science, studied it, gained mastery over it and rendered it as an utilitarian field under the name 'Vāstu science'. Having deeply analysed and understood both space and earth, the Vāstu Vedins of this tradition have firmly established in this land, the subtle concept of space turning into earth and the concept of earth, intent to become recoiled into space. I want to state with a sense of pride that our shilpins have transfigured the science of light into concrete and visible musical structures, in the same way as they have transfigured the science of sound into melodious musical forms and enabled the people enjoy these transfigurations. What is the subtle substance or subtle êtergy that has penetrated into space, air, fire, water and earth and pulsates as their very breath ? - this is the principal and fundamental

question of space-science. It is that subtle energy that I have mentioned as 'light' and set forth certain themes known to me on that aspect. To substantiate my point, I have shown to you the temples of space-science, namely Chidambaram and Srirangam. Our religious systems and the scientific tradition have considered this luminous substance (ஒளிப்பொருள்) only as the most adorable and venerable. Only this luminous substance was held, in ancient times, to be the central or main idea behind the worship of linga. In later times, this came to be considered as space-worship. Even the linguists have explained that space means light.

The cult of linga-worship was pan-Indian in ancient times. Though it suffered a set back and a danger of extinction in later times, our ancestors took effective efforts to preserve and safeguard this unique cult. One of the benefits of these efforts was the emergence of 12 jyotir-linga-sthalas. Having identified 12 sacred places that were popularly and widely known and integrated and unified as the jyotirlinga sthalas (i.e. places in which luminous-column (ஒளித்தூண்) manifested in the form of linga), and having schemed a system of pilgrimage to these places, our ancestors had securely united this

whole country with the bond of religion. By this, the whole country was kept free from distinctions and differentiations. This, I could say, is the commendable victory gained by the scientific tradition of Vāstu.

Having attained matchless knowledge of the science and technology of Vastu, about which I have written so far, the ancient and aboriginal tradition of India that had the privilege of serving the people of this country was that of Viswakarmas. The traditional shilpins themselves came to be called Viswakarmas. All those who hail from this tradition are invariably the practitioners in the science and technology of Vāstu. These Viswakarmas, who shine as the veritable personification of hard labour and sharp knowledge for thousands of years, today have become narrowed down, disfigured and relegated due to the negligence of the society. Their fruitful services are not given due credit, are not estimated from the relevant perspectives. I want to re-state here that Viswakarma is not the name of a particular caste (Jati or Varna) but it is the name of the profession, just like the name 'engineer'. These Viswakarmas are not included in the system of four castes. They are above caste and religious

distinctions. Belonging to a supreme tradition and being with an impartial outlook, they have been rendering selfless services to all, irrespective of caste. It is my earnest request that both the people and the governments should come forward to uplift them and bring them into the main stream of Indian science and technology and enable them play an effective role in the development schemes of our country. Then only, the unique system of mathematics and measurement in which the most secret and subtle aspects of Vāstu science are present, could be utilised in a more effective and purposeful way.

Incidentally, two important views subjected to unsettled dispute, are now taken for discussion. These views are about grammar and literature or about the principles and forms or structures. Some scholars are of the view that the system of grammar takes its origin only from literature depicting gross life on earth. Some others are of the view that literature takes its form, only based on grammar. If viewed peripherally, both the views may appear correct. But both the sets of scholars find it difficult to place substantive material to maintain their points. Whether the grammar is framed based on literature or literature is created based on grammar? - to this

question, so far no definite answer has been given. But if it is seen through the glass of spiritual science, and from the stand point of scientific outlook, I hope it would be ascertained that only grammar should have preceded literature or structural form. That is, all forms are brought into existence based on grammar.

Let us analyse this point further. Who is responsible for the plethora of happiness and the blissful appearance of the world? Who is responsible for the beautiful abundancy of Nature which presents itself in various forms such as sun and moon, trees and mountains, flowers and forests, animals and birds, planets and stars - the beautiful flowers of space! Who is that wonderful artist who made these flowers of space? If these are considered as literature, then there should have been a grammar as the basis of it. This is the eternal grammar, ever-relevant grammar of Nature. The enlightened persons of India have reasonably maintained that all creations should have been preceded by an authentic and perennial grammar.

This being the case, what do you think about the grammar of a language? Was our grammar

formed out of literature which reflects life? Or was our life, being the reflection of life formed out of grammar? As far as spiritual life is concerned, it is moulded and formed by grammar only. Grammar is a set of rules and codification for an orderly structure. Grammar formulated basing on physical or worldly life would be relevant only to the external or physical life-pattern. For spiritual life, which is superior to the worldly life, certainly a different type of grammar is needed. This spiritual life is closely related to the science of inner space (உளவியல்). In its real essence and existence, inner space is a store house of serene and active feelings. It is the inner space that experiences **rasa**, that is the essence of the fruits of aural and visual forms. What is experienced is called **rasa** and the experiencer is called **rasika**. The Vedas declare: “raso vai sah; so vai rasikah”. He himself is both **rasa** and **rasika** - experienced and experiencer. The inner space itself is denoted here as **He**. This should be manifested in all the creations of man. In the field of Arts, only this **rasa** has taken the form of poetry, music, dance, sculpture and architecture. To bring all these into existence, there is a unique grammar prevailing in the tradition of **Vāstu**. This is the most fundamental

grammar, being the grammar of both rasa and rasika. Only based on this grammar, He who is one with nature, has created all the world and worldly objects. According to Vāstu, He himself becomes world and the objects of the world. All the creations related to poetry, music, dance, sculpture and architecture could be logically claimed as His own creations. So, for all creations or compositions there should be a grammar and this means grammar precedes creations/compositions/literature. This is what Mayan himself says. It was Mayan who first formulated the grammar of Vāstu. In the Silappatikaram, Ilango-adikal states: "These are the creations as formulated/schemed and given by Mayan" I consider his statement which speaks of Mayan's formulation or grammatical rules as mahā-vākya, the statement with great significance, since it protects the dignity of the shilpins. So as far as Vāstu is concerned, the established truth is: "grammar first; creation next".

Einstein explained that all the cosmic phenomena and creative processes are contained in the equation $E=mc^2$ and concluded that this may be considered as our G-O-D. It is not known how many persons grasped the significant message couched in his conclusive statement. Even though this equation

is praised highly, there are some persons who find this equation irrelevant and discrepant. I could say that this equation echoes the scientific principles of Vāstu. I am able to understand the validity and significance of this equation, since the science of Vāstu and the authentic work of Mayan have considerably helped me in this regard.

Even at the peripheral look at the equation $E=mc^2$ what I understood was that E denotes subtle energy and mc^2 denotes material or gross energy. To put it in technical language E denotes Vastu and mc^2 denotes Vāstu. I saw that the aphorism of Mayan, 'Vastureva Vāstu' (Vastu itself becomes Vāstu) is beautifully echoed in the equation $E=mc^2$.

वस्तुरेव वास्तु

To recapitulate what has been told earlier on space, in the equation $E=mc^2$, E is energy, power or light. On the whole, it denotes awareness. In energy, matter is inseparably present. The energy itself, which pervades and encompass everywhere is space or ākāśa. The space is filled with atoms called energy-atoms or paramāṇus, also known as light or space- foetus (விண்கரு). The form of light atom or

the form of space filled with light atoms in its state of invisibility is cubic. To be in cubic form is its very nature, and this cubic-atom is considered to be the first manifestation of the Primal Existence.

Based on these views, I analysed the content of the expression mc^2 . I understood that m is mass, coherent body of matter and since c denotes the velocity of light, c^2 is luminous square (ஒளிச் சதுரம்) or the square field of energy. My knowledge on mathematics, languages and science of Vāstu enabled me conclude that it is 'm' that gives the third dimension to the luminous square. If E is cubic, then mc^2 is also cubic. If $m=1$ then E becomes equal to c^2 , the \square luminous substance.

In this illustration, E is the substance manifested through velocity of light.

I could say that in the equation $E = mc^2$ it is 'c', the light which penetrates into the matter that is realised as God. I presume that keeping in mind this point only, Einstein could have told that the subtle meaning expressed through the equation may be our G-O.D. . .

I equated the aphorism of the Vāstu Veda, i.e., 'Vastureva Vāstu' with Einstein's equation $E=mc^2$

and wondered on knowing the subtle truth that Vastu (E) itself becomes $\bar{V}astu$ (mc^2). In my estimation, I could say with certainty that the only two men who measured out both space and earth are Mayan and Einstein.

Mayan's contributions are in such great measure that they continue to span all the ages. Not ceasing with mere formulation of the scientific aphorism 'Vastureva $\bar{V}astu$ ', Mayan has skillfully offered three things - a fitting order of measurement or mathematical system, effective approach and technology - to the whole tradition of shilpins. He has framed a law or principle and given it to the shilpins in order to create cities and towns, houses and halls, temples and sculptures and other constructions useful for a harmonious life. By doing so, he has enabled the human beings experience spiritual comforts and supreme bliss in this mundane world itself.

As an intuitionist, as an experiencer, but not as a scholar, I understand the science-based concepts and truths of the tradition of $\bar{V}astu$. As such, I have explained that not only the art of sculpture and architecture but also poetry, music and dance are

based on Vāstu science. It is only by virtue of being scientific, the five arts mentioned above are considerably different from the art-traditions of the world and they are esteemed to be unique. All the five arts are harmonious with the creative and functional order of Nature. The grammar pertaining to these arts, is indeed the grammar of Nature itself. This unique grammar precedes the respective creations and compositions.

The grammar I am speaking is the one that is common to both sound and light. Therefore, the mayonic aphorism 'Vastureva Vāstu' i.e., Vastu itself becomes Vāstu, is applicable to both sound and light. That is, the equation $E=mc^2$ is applicable not only to the visible and concrete forms or luminous forms (ஒளிவடிவம்) but also to aural forms (ஒலிவடிவம்). I venture to say that this Sūtra (meaning, equation) is a strong Sūtra (meaning, thread) which tightens the bond between the East and the West. May be due to this significance and import, that Einstein indicated that in this equation is implied our G-O-D.

The phenomenon of 'Vastu becoming Vāstu' is a common one taking place in Nature at all times and at all places. I would say that only this E (Vastu) enters

the womb of a mother as luminous atom and turns into mc^2 (Vāstu) and assumes the form of a child. This E itself determines and defines a proportionate measurement for such a metamorphosis which is not due to our efforts or deeds.

By imparting the knowledge of proportionate measurement, the science of Vāstu has elevated the shilpins to the devine and venerable state of a mother. There is a traditional saying “mātā shilpi”, meaning shilpin functions like a mother. On this ground, many a time I have revelled seeing my own self in all my creations. I am with such an outlook and feeling that I consider them as my own children, as the replica of my own self, as the reflection of my own self. I use to describe them as ‘ātmaja’, i.e., born of my own self. I have been enthusiastically saying and repeating that shilpi himself becomes shilpa and poet himself becomes a poem. When I say that feelings themselves are metamorphosed or attaining cognizable forms, what is that which enables them to turn into form? It is nothing but the grammar or order of proportionate measurement. If this is not so, if this has not materialised in a definite process, there could not have been divinity or the vibrant power in these forms. Therefore all the

creations made by the traditional shilpins are Vāstu, the modification of Vastu; they are the adorable and worshipful forms. How much enthralled and elated Einstein would have been, if these concepts of the traditional science of Vāstu had reached him?

With this sufficiency of knowledge in Vastu and Vāstu, let us now look at the concept of Reverse-Dance, a significant dance- form sculptured and installed in Madurai temple. The Silpa Sastras give an account of 108 tandavas (dance - patterns) of Nataraja, which are mentioned in the treatises dealing with the art of dance (Nāṭya sāstra).

नृत्तमष्टशतविधं प्रोक्तं तत्रादौ नवकथ्यते ।

भानुरुद्रदशांशं वा तुंगं नृत्तं नतं भवेत् ॥

Amsumad bheda Kāsyapiya

As said in the Amsumad bheda Kāsyapiya, these 108 tandavas are reduced to nine and subsequently to five. The five modes of dance are: Dance of evolution (srsti-tandava), dance of sustenance (sthit-tandava), dance of involution (samhara tandava), dance of obscuration (tirobhava tandava) and dance of grace (anugraha- tandava). In a conclusive stage, even these five are reduced to three, dance pertaining to evolution, sustenance and

involution. Of these three, both the dance of evolution and that of involution (srsti and samhāra) are elaborately treated in the Agamic mode of worship. In all the temples, especially in Chidambaram temple, what we see is the expressive form of the dance of evolution (srsti-tāṇḍava). The popular view being held in religious tradition is that the dance of involution (samhara tandava) is in contradistinction with the dance of evolution (srsti-tandava). But this is not the truth.



Reverse Tāṇḍava

The image of Nataraja, in the case of creative-dance is with the following lineaments: right leg, bent and pressing the back of a demon named Muyalaka, left leg raised and curved rightwards, lower right hand depicting 'abhaya mudra'

(fear-dispelling gesture) upper right hand holding the drum, lower left hand stretched transversely down, its palm turned downwards as if to indicate the significance of the raised left leg, upper left hand holding the fire, face in a majestic disposition, head crowned with matted hair either constricted or loosened and stretched. The head of the demon, Muyalaka is on the right side of Nataraja. He is shown as holding sword and shield or snake in his hands. The image of Nataraja, endowed with these features is well-known throughout the world and is drawing the pointed attention of scientists and scholars.

In the image of reverse-dance, we see these features totally reversed: left leg bent and pressing the back of Muyalaka whose head is on the left side of the image, right leg raised upto his hip and curved leftwards, lower right hand stretched transversely down, upper right hand holding the fire, lower left hand holding abhaya mudra and upper right hand holding the drum.

Traditionally, this is known as the dance of involution (samhara tandava) but the fitting name is the reverse-dance (mārukāl tandavam, in Tamil). The image, depicting the reverse- dance is seen in two

places. One is the Minakshi Temple in Madurai, where the image is made of stone and the other is Madras Museum, where the image is made of bronze. The former is in the original and traditional style of the shilpins of Madurai. The latter is in the style of the shilpins of Chola country. Strictly speaking, sculpturing of the image of Nataraja in stone is contradictory to the rule of the tradition and of the Sāstras. But in Madurai Temple we see the stone image of Reverse-dance. The seeming contradiction which we notice in the image of Nataraja installed in Madurai temple is not without significance and message.

The local mythological work, *sthala purāna*, speaks of the reverse-dance by narrating a story. A Pandiyan King felt that if the Lord was continuously dancing with his right leg always pressing against the back of the demon, then he would be afflicted with pain. So he entreated the Lord to change the positions of His legs. In response to his prayer, the Lord assumed the form of Reverse-dance. This story may seem relevant to mythological background but not relevant to the exact concept of the Reverse-dance. This story could have been fabricated during the period posterior to the Pandiyan King.

In the tradition of the science of Vāstu, there is a significant form or design, as the most dominating, as the most subtle and scientific. Earlier I told about square and its characteristics. I explained how the square turns into octagonal and then to circular forms, which are the geometrical designs representing the qualities of space.

In its tri-dimensional expression, square becomes a cubical prism. The actual form of space-atom (விண் அணு) is the cubical prism. While speaking on the nature of Brahman, the vedas declare:

अणोरणीयान् महतो महीयान्

anoranīyān, mahato mahīyān. This means that Brahman presents Himself both in the form of atom and in the form of macrocosm. If atom is cubic, then the macrocosmic structure also is cubic. The whole cosmic structure is in the form of a largest cubical prism. In the tradition of Vāstu science the immeasurable cosmic structure is estimated to be the cubical prism of largest size possible. Once the form is evolved, is it not evident that there is an appropriate mathematical order for that form?

The ground plan of that cubical cosmic structure, when it is in the state of vibrant stillness is logically and essentially the square design. It is this square design that is called Vāstu-purusha-mandala.

There is a fascinating mythological story about the origin of Vāstu purusha, narrated in the Vāstu Sāstras and in other treatises based on the Vāstu Sāstras. Once there emerged from ākāśa, a great demon, looking most dreadful and encompassing the vast expanse of space. The celestial beings, devas, who saw the demon, got frightened. Mounting on the demon, they made topple over onto the ground. They occupied various parts of his body and seated there so that the demon did not rise up from the toppled position. This demon came to be known as Vāstu Purusha. Since there is no scientific truth in this story, those who are interested in knowing the science of Vāstu as well as the westerners discord this story. Most of the scholars do not give credence to this.

Both the Vāstu Sāstras and the Agama Sāstras treat this 'great demon' as the subtle cosmic substance, as the primal and basic energy-substance (முதற்பொருள்), and as the adorable and worshipful

form, enjoining the rule that all the activities such as the construction of houses, temples, tanks, cities, towns, the first entry into the newly built house, and so forth should be commenced only after doing the worship of Vāstu Purusha as detailed in the s̄astras. This is considered as the traditional and inviolable rule. Of late, this practice is gaining prominence and new life. Nowadays, the important theme on which the contemporary scientists and scholars are focussing their attention is the principle of Vastu Purusha and of Vāstu Purusha mandala.

What I want to state here is that the concept of Vāstu Purusha is the Big Bang theory of Indian Science. The one which manifested itself in the space, exploded of its own accord and disintegrated into atoms, turned into macrocosm and microcosm. This is what took place at the time of the beginning of cosmic creation. Since this kind of manifestation and explosion is taking place within our inner space in each and every second, we could say that this Big Bang is not only the event that took place at the time of creation but also the event that is always taking place within us and outside.

The space itself consciously feels, turns into light, melts, splits and assumes innumerable forms.

It is these forms that we see as the emerged and emerging objects of the world. The amplified version or the mythologised version of these concepts is the story of Vāstu Purusha as narrated in the Vāstu sāstras and Agama sāstras.

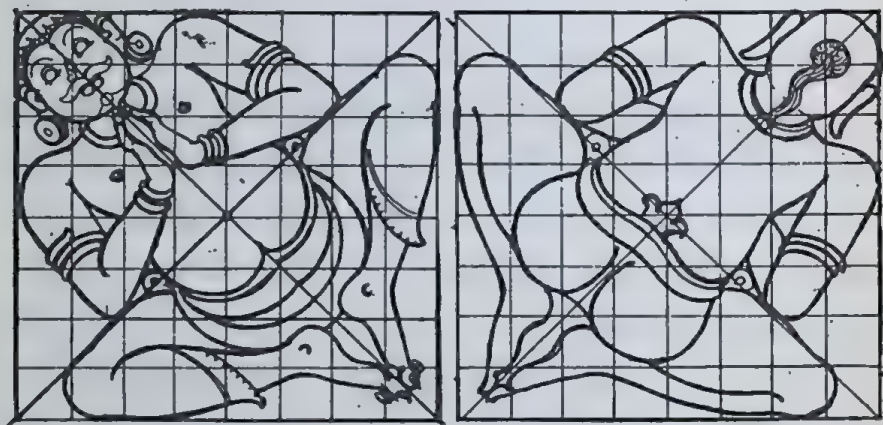
Logically and scientifically we have seen that the universe is in the form of large cubical prism based on the structure of paramānu. It is the very nature of minutest atom to be in the form of cubical prism. It is this atom, when it rises to tamasic or gross state, that turns into global universe. This point would be clear if we observe the banyan tree and its seed. The whole tree is contained in a minute seed and the seed is contained in the tree. The state of fractal universe and that of fully-developed universe is like the seed and banyan tree. In the Tamil art-tradition, we have it stated that atom itself becomes the universe. Keeping these two states - atomic state and fully manifested cosmic state - the tradition of Vāstu science declares that Nataraja performs one and the same dance being within an atom and within the cosmic structure.

What is enclosed within the mandala of Vāstu purusha is a part of light-space (ஒளிவிண்). I have

already explained the truth that space itself turns into earth. If we look at the world from this stand point, it would be evident that the whole earth-space (மண்ணெளி) and a part of earth-space are one and the same. A construction having length, breadth and height upon the square- design drawn on a selected plot is actually the building raised on the Vāstu purusha mandala. In reality, it is in the form of the whole cosmic structure. All these are stated here to serve as preamble to my exposition that space itself turns into earth or the earth is the mirror image of the space. This is made clear further by superimposing the image of reverse-dance within Vāstu purusha mandala.

Let us now come to the practical trend prevailing in the tradition of Vāstu and look at closely the design of Vāstu purusha mandala. While we proceed to explain this design, it is customary to draw the figure of Vāstu purusha as to lie within the boundary of the mandala. Taking the exact centre of the mandala as the navel of Vāstu purusha, his body and head would be shown lying along the diagonal line of the square. On the exact opposite corner of this diagonal, his feet would be drawn, bent and joined with each other; his hands, expressing the

gesture of salutation and elbows touching the other diagonal line perpendicular to the previous one, the whole figure would be covering the entire area of the mandala. This is the pictorial representation of the Demon covering the whole expanse of space as narrated in the story of Vāstu purusha. Traditionally we use to say that this is the expression of the bodily



Lie of Vāstu Purusha

features of Vāstu purusha who keeps himself in serene and vibrant stillness. It is in the minimised form of such Vāstu purusha that the huge banyan tree is within its seed. Likewise, we were in the same minimised form of Vāstu purusha, folding and bending our hands and legs within space-atom, otherwise known as bindu or sperm. Due to the

vibrations and vibrational measures of Vāstu purusha we have assumed our present form characterised by growth and breath. In the tradition of Vāstu Science, we are saying that right from the child all the living beings and all the structural forms are the real manifestations of Vāstu purusha.

Whereas this is the general design of Vāstu purusha, Vāstu purusha is not shown in the same pattern in the Manasara, . You will be surprised to know that in the Manasara, Vāstu purusha is depicted in the reverse-dance form of Nataraja (மாநாகால் தாண்டவம்). If we draw the figure of Vāstu purusha according to the Manasāra, it would appear as the reverse-dance form of the Nataraja. The universe is considered to be the mirror image of Nataraja, who is Vastu purusha. This finding is one of the scientific wonders of the science of Vāstu. The structural form of the universe is the modified state of Vastu purusha which is effected when he turns into Vāstu purusha. This is what Manasara illustrates through the description of Vāstu purusha. The fact that the great demon was toppled down on the earth by the devas signifies this concept of Vāstu science. Here we can observe the efficacy and illustrative ability of mythological language. The mythological story

should not be taken literally. Its exact import should be understood.

Then, reverse-dance is not the dance of involution (samhara- t̄andava); it is expressive of the message that V̄astu purusha always exists with vibrations and pulsations of breath, within V̄astu purusha. As a modified version of reverse-dance form of Nataraja, we see the image of Vishnu. that is why we see his right hand holding the blazing wheel and his left hand holding the conch (sankha), showing the displacement of sound-source and light-source. I hope this view will be accepted in toto by the contemporary scientists.

It is now clear that in each and every atom exists V̄astu purusha as a living and animating source. The V̄astu purusha does not emerge out with forcible vibrations as is done by Vastu purusha that is Nataraja. V̄astu purusha actually reflects all those that have manifested by Vastu. Just like a tree exists in a unmanifest form in its seed, this V̄astu purusha is in each and every earth-atom (மண் அணு). He exists in a stilled state; exists with vibrant stillness. To illustrate this calmness and vibrant stillness, he in the form of Vishnu, is sculptured in reclining

posture, as being in slumber or yogic sleep. The Vāstu vijnāna begins with the equation $E=mc^2$, grows further and gets itself structured into space-science (விண் ஞானம்), heading towards supreme space.

It is the serene and beatific feature of Vāstu purusha who exists in earth, in each earth-atom that has been shown in Madurai temple as the reverse-dance form of Nataraja. Only for this reason it has been sculptured in stone. Now, are you able to recognise the sharpness of scientific knowledge of the shilpins who created that meaningful and beautiful form?

3

Revisional and conclusional

The shilpins of our country, irrespective of north-south distinctions, have been adhering to the tradition of sculptural and architectural sciences, from time immemorial. In ancient times, this tradition prevailed in its oneness throughout the country, but in the efflux of time there emerged typical differences, in the field of sculpture and architecture. The availability of different raw materials, differences in the qualities of these materials, natural order and environment - all these subscribed to the sproutings of different types. In olden times these differences were based on qualitative differences such as sātāvika, rājasa etc. But in spite of these differences, there did not occur any distortion or deterioration in the fundamental strata of the Vāstu tradition. The qualitative difference gave rise to the emergence of three types - nāgara, drāvida and vesara and a later stage there came into existence three more types (bedas) - andhra, kalinga and vārāta. All these six

varieties are to be called **types** (beda) and not traditions or **styles**. But as far as the basic order or grammar is concerned, all these were rooted only in the common stream of Vāstu tradition. Whether they were types or styles, they were formulated, designed and executed by the traditional shilpins only. These types or styles should not be attributed to the rulers of their times as if they created their own specific traditions.

But from the beginning of this century, the so called styles were given different names. Scholars, historians and researchers, as well as the westerners; when they studied and analysed these architectural constructions, began to call these different styles in the name of dynasties such as Chera, Chola, Pāndya, Chalukya, Hoysala, Pallava, Rāshtrakuta and so forth. The names of different dynasties gained prominence over the traditional artists and architects. But what is to be observed is that within the realm of traditional shilpins belonging to the various regions of our country, who strictly adhered to the Vāstu directions and codifications, there did not occur any difference of opinion, or clash or professional jealousy. Having noticed such solidarity and good interaction within the traditional shilpins, some scholars who did not

like this, began to write and speak on this tradition in such a way as to create differences and cleavages among the shilpins. This should not have occurred, since such splits would disturb and destroy the integrity of our country.

In spite of so many changes and proliferations and diffusions, the knowledge of science and technology related to sculpture and architecture still remains closely affiliated to only one tradition that is Vāstu, which belongs to the whole nation, like the Vedas. Just as there are regional differences and styles in the pattern of vedic recitals, even so there prevail regional differences and styles in the tradition of Vāstu. But these differences do not point to the diversities of the tradition. Only the Vāstu Veda and the harmonious life-style that could be effected by it, could serve as the fundamental media to demonstrate that our Bharat is an undivided land of integrity and to safeguard its welfare. This point deserves mentioning here because of the present day turmoil and conflicts.

One more point to be noted here with much stress is that in the texts dealing with the principles of sculpture and architecture which go by the name

Vāstu s̄āstra , there is not even a single reference to any individual person or patron or king or religion or language by name. The Vāstu texts are purely impersonal. Only in inscriptions we come across the names of shilpins who sculptured or structured and the kings who patronised. The tradition of Vāstu, which maintains its uniqueness right from the very distant past up till date, did not come into existence depending on any other traditions of the world or borrowing the ideas and doctrines from the sources external to it. This is basically a self-evolved and pre-vedic tradition. This point I want to state emphatically. Eighteen years ago, I wrote a book titled “sirpa- cennū” (சிற்பச் செந்நூல்) in Tamil. As a mark of gratitude and indebtedness, I have mentioned certain names of kings of ancient period who patronised and preserved the tradition of Vāstu, only in the preface and not in the main body of the book. This is because the tradition of Vāstu had attained its well defined structure even during the pre-historic period. The root of this tradition is somewhere beyond the historic point of time. Nobody could alter or modify its grammar or concepts. But there were possibilities` and opportunities for the amplification and proliferation of the tradition.

Evidently we could say that even the art-traditions of India, namely, poetry, music and dance are very ancient and worthy of pristine glory.

Nowadays a deep sense of fear has arisen as to whether such an old tradition of Vāstu would be forgotten or neglected. The interest and attention which our contemporary people have got in this field does not seem sufficient and encouraging. Even now there are people who discord and neglect this, thinking that Vāstu is closely related to religion and hence it is sectarian. Since most of Vāstu sastras are in Sanskrit, those who do not know Sanskrit, hesitate to evince interest and involvement in this field. The overwhelming patronage, being enjoyed by music, poetry and dance, has not been accorded to the tradition of Vāstu science. We have become confused and paralysed, since we have forgotten the very root or basis of this tradition and since its basic-source is still in shrouded and eclipsed state.

This being the paining condition, I launched myself on a tour of quest. This is a tour, I could say, that has been undertaken in search of truth. This is a self-experiment, a colourless search for truth. Without any reservation or concealment, our ancient

rishis, ancient literatures, ancient works of grammar - all have spoken about this basic root - truth, which I am searching for . We have failed to take notice of them, to study them without any bias to understand and appreciate them and so the crime of 'not knowing the truth' lies only with us. In time to come, this truth will manifest as it is. Because this is an age in which people evince much interest in knowing the truths of traditional science and technology, to envision new areas not being hampered by spatial difference nor thwarted by narrowed outlook. We are left with only one chance of accepting their findings and conclusions.

To mention a few: To-day it is possible to show, how the tradition of Tamil grammar, which speaks of five fundamental vowels - அ.இ.உ.எ.ஓ — could be paralleled to the tradition of English grammar which also speaks of five vowels. The tradition of Indian music which stemmed from the basic five notes - ச. ரி. க. ப. த — started to speak of seven notes. Parallel to this phenomenon, the five vowels of Tamil language got modified into seven — அ. இ. உ. எ ஓ. ஐ. ஔ — and finally evolved into twelve, including the long letters of five vowels — ஆ. ஈ. ஞ. ஏ. ஓ. In the field of music, seven svaras and five anusvaras

constitute twelve svaras which are comparable to the twelve vowels of Tamil language. Based on this, the present day scholars hold the view that whether the very melodious sound of Tamil itself could have naturally evolved into twelve musical notes. Such innovative researches are going on today. An American scholar has established his finding after 25 years of assiduous research that Cleopatra was a Keralite lady. Can we set aside this finding as baseless and untenable?

The contemporary development in research areas made it possible to decipher the meaning of the letters and seals of Mohen-jo-daro. The field of research which so far paid its attention on Māyan civilization of Mexico and which showed that Māyan was well versed in the science of Time and showed that it was he who built the pillars and pyramidal structures that are withstanding the ravages of time, has grown further in such a way that it maintains the view that this Māyan was the Indian architect Mayan only. Not only this. Formerly, the author of the Sūrya Siddhanta, the oldest and authentic work on Indian Astronomy was unidentifiable, but now it has been ascertained beyond doubt that Indian Mayan was its author. Various architectural constructions

and structures of Mexico are considered to be illustrative of the astronomical principles set forth in the Sūrya Siddhanta. Even the authorship of the Egyptian pyramids is ascribed to Indian Mayan. Similarly new theories about Prakrit language have been propounded. Some scholars consider the Prakrit language as the originating source or source-language of not only the Sanskrit but also other languages such as Pali, Ardhamāgati, etc. Thus, the field of research has now gained wider range of penetration, growth, stability and strong foot hold. Keeping themselves within this salubrious ambience of systematic and unbiased research, scholars are now searching for not only the root of Prakrit itself but also for the identity of Mayan and Māyan.

Mayan was both a systematisor of scientific tradition and a scientist - architect. I am very much sure of this view. I have no doubt about Mayan-Māyan identity also. The emergence of Vāstu Purusha mandala is due to Mayan only. This Vāstu purusha mandala is an unparalleled scientific vision and it is the origin and substratum of the tradition of Vāstu. The secret of Vāstu Vijnāna is that the square-design consisting of 64 small squares is the basic plan of the Cosmic Building or the whole

universe. Mayan was the first formulator and designer of Vāstu purusha mandala which is rendered as Māyan Calendar in Mexico. As far as the shilpins of this tradition is concerned, there is no room for divided opinion with regard to the relationship of Mayonic science with the Mexican land. In addition to my professional commitments, I am researching and writing on Mayan-Māyan identity for 35 years now, in order to strengthen this theory and explain to the people the validity and relevance of Mayonic science and technology and the greatness of Mayonic constructions. It is this time-consuming research that was referred to by me earlier as the "journey in search of roots". I have already mentioned about the research journal in English 'Vāstu Purusha' by name, for which I am the editor. This magazine is devoted to Mayonic culture.

Exclusively for the purpose of establishing the Mayan-Māyan identity, I conducted an international seminar on Mayonic Science and Technology in January 1993 out of my own expenses. I expounded my theories and findings and I heard the opinions and views proposed by the scholars who took part in the seminar. Their sincere interest and enthusiasm encouraged me to a larger extent and move forward.

Since the path chosen by me is scientific, and not historic, I am sure that one day in the near future Mayan of East and Māyan of West would meet and merge in one another and become a single whole. More and more evidences are available to me in this regard.

Being deeply rooted in Time and Space, this Vāstu tradition has created wonders. Having seen and realised that the Subtle Principle (സൂക്ഷ്മം) which is beyond the reach of human senses and which is of the nature of energy and consciousness, the Vāstu tradition has given a definite form within the frame of a numerical scale. Having realised practically the efficacy and greatness of this tradition, I hasten forward to put forth my sincere efforts so that the benefits of this science reach all people irrespective of spatial and racial distinctions.

As a 'traditional shilpin, hailing from the tradition of Vāstu, I am able to realise the real and enduring vitality of the science of Vāstu which compels us, and trains us to treat all the human beings of the world with an equal vision and equal outlook and to take care of their well-being. I am able to see that the ever-relevant concepts of Vāstu

science have originated even prior to the Vedic period, have widely proliferated into cultural streams and civilisations world over. I solicit the co-operation and support of research scholars with a view that I may not go wrong, may not go out of impeccable path owing to my inseparable affiliation and affection to the tradition of Vāstu. The research on Mayan and Māyan has got its own superior relevance. All other investigations and researches would earn for us reputation and merits. But this Mayonic research, in addition to bestowing this reputation and merit, would give a congenial and healthy life to the people of the world. This would elevate our Bharat country to the greater heights.

Even at the very instant of hearing the name of 'Mayan' everybody would think of the great Indian Architect, Mayan. But there are some scholars who say that there was a renowned architect Viswakarma in North India, also known as deva shilpi and there was another skillful architect Mayan in South India., also known as asura shilpi. Were Viswakarma and Mayan really different persons? or, were they one and the same person? - this I wanted to know even many years ago. Being endowed with traditional knowledge and skill I was able to see that the

principles of science and technology of Vāstu tradition were all alike throughout India - from North to South and from West to East. Also, being a student of Sanskrit. I studied the ancient and basic Vāstu texts written in Sanskrit. As the result, I saw Mayan in the Sūrya Siddhanta and saw the same Mayan as Viswakarma in the Mahabharata. Consequently I saw the same Mayan in Māyan of Mexico also. All the time I take a close and deep look on the matters related to the ancient Indian civilisation and culture and their basic roots, I see Mayan only. I am emboldened to state that the pinnacle of perfection attained by Mayan in science and technology cannot be measured or estimated by any means. This Mayan had unified all the different races of humanity and had provided a strong and worthwhile foundation for the world civilisation. Is it not, then, our indispensable duty to know about him and the scientific tradition created by him ? At this point I want to state that I won't be pained, if my views on Mayan and his tradition are refuted or I won't be conceited, if my views are appreciated and applauded. I would feel enlivened and elated to remember the fact that this Vāstu tradition has been responsible for the integrity and harmonious life of human beings.

With regard to historic and literary evidences I have already referred to the Silappatikaram which speaks of Mayan's grammar (விதி) and his contributions. Both the Silappatikaram and Manimekalai mention an ancient Tamil work known as Oviyac-cennūl (ஓவியச் செந்நூல்) (a book on forms and patterns or drawing and painting). The commentators on the Silappatikaram had made it clear that this specific work on the art of drawing and painting had been lost owing to the negligence of the people who found it difficult to understand the text. Now we are able to know that Mayan was the author of that work.

The statement of Mayan itself ascertains the fact that Mayan himself was Viswakarma. Before commencing the constructional work of 'maya sabha' Mayan approaches Arjuna and introduces himself saying

अहं हि विश्व कर्मा वै दानवानां महाकविः

"aham hi viswakarmā vai dānavānām mahā kavīḥ" -
 "I myself, am Viswakarma and I am the great poet of dānavas (asuras)", Only the mythological works (puranas) that came after the period of the Mahabharata began to differentiate Mayan from Viswakarma. These mythological works were written

at different places in different times. They do not belong to the simultaneous period. All the more, I find it difficult to accept the view that Vyāsa was the author of all the eighteen Puranas. How could Vyasa, who as the composer of Mahabharata, showed beyond doubt that Mayan himself was Viswakarma, have showed differently as Viswakarma in North and Mayan in South? The Rg Veda which praises Indra as 'deva' also calls him 'asura'. Even Varuna is addressed 'asura' in the Rg Vedic suktas. This does not mean that Indra as deva is different from Indra as asura. So also we have to conclude that Mayan, the asura shilpi is not different from Viswakarma, the deva shilpi. The Vāstu sāstras never speak of Mayan as different from Viswakarma. In the South Indian Vāstu sāstras, Viswakarma is considered to be Supreme Brahman himself who created the world. Mayan is the name given by his parents; Viswakarma is the professional name. Even in the Nāṭya Sāstra, Sage Bharata, without resorting to the distinction of North and South, says that the pattern of stage described in this sāstra is the one as described and designed by Viswakarma. Such north-south distinction involving Mayan and Viswakarma is totally untenable and inconsistent. Let us not give

much credence to the mythological versions and let us rely upon the basic scriptures, literatures and historical works.

A description itself as given by Valmiki, who speaks very high of Mayan would suffice to ascertain and understand Mayan's greatness and uniqueness. We are in need of no other evidence than that description. Valmiki describes Mayan as an enlightened Spiritual Master, as a matchless scientist and as an unrivalled technologist.

मयोनाम महातेजा मायावी वानररिषभ

'Mayo nāma mahātejo, māyavī vānararshabha' - this is what Valmiki says. "The most resplendent person, whose name is Maya is endowed with supernal and wondrous powers, unattainable to ordinary human beings". Even Kamban describes him as 'the divine architect' (தெய்வத் தச்சன்) (கம்ப ராமா: யுத்த : 6198) (Kamban's Rāmāyana, Yuddha Kānda-6198).

There is deep meaning in Mayan calling himself Viswakarma, when he introduces himself to Arjuna. Indra, Varuna, etc, are considered to be important devas or celestial beings by the Vedic scholars who have actually failed to take notice of one important and powerful deva. I am referring here to

Viswakarma who is highly praised in the famous 'Purusha sukta'. This is sheer negligence on the part of Vedic scholars. Owing to such negligence and short sightedness, many important doctrines and concepts of the most scientific tradition of India still remain in darkness. Traditionally, Viswakarma is also called Virat purusha, Virat Viswa purusha, Virat Viswa Brahman and so forth. To put it precisely, Viswakarma is more science-based than religion - based. Considering his cosmic actions, we can call him the kinetic energy of the universe or material energy of the universe. Viswa means universe and therefore Viswakarma means the one who creates the universe. Viswakarma also means active and activating force that has created the whole universe. How does he create the universe ? What is the raw or source material used for creation ? What is the instrument or tool, handled by him ? What is the scale ? - these questions were not raised and ruminated upon while investigating the nature of Brahman. If the scholars have pursued their researches, based on these questions, systematically, and free from likes and dislikes, an important turning point could have taken place in the investigations related to the scientific phenomenon of cosmos. I

don't know why they have left out these data. On the same score, they have left out Mayan also. Perhaps, they would have thought that Mayan or Viswakarma is only mythical and not real. Let them be certain that Mayan is a historic purusha; charitra purusha. It is for the immediate attention of the scholars that I make mention of Viswakarma Sūkta occurring in the Rg Veda. Even this important sukta has not been accorded a fair treatment by the Vedic scholars.

Instead of setting forth the doctrines and concepts of our scientific tradition in a schematic order and scientific way our predecessors have couched them in a mythical or metaphorical language and revealed them through forms (உருவங்கள்) and concocted stories. This process of transmission may be the reason for our ignorance of the science of Vāstu. Since these forms and stories had entered into the religious arena, ultimately the scientific concepts were regarded as religious dogma. The theme that 'science itself turns into religion' remains totally obscured by this erroneous idea. With the result, what is really experienceable becomes a matter of inference and presumption. It appears that a kind of mythical language (paribhāsha) could have been in

usage to transmit the scientific concepts. But even here an important name that did not fall within the realm of paribhasha is Viswakarma. Unless this mythical language is decoded, demystified and explained in a fitting way, nobody could grasp the scientific essence of the subject, nobody could believe that there was such a science with us. But we cannot altogether neglect the mythical language. Because, it is mythical language that helped the tradition of Vāstu science to transcend the realm of physical sciences, to be in direct touch with the Absolute Brahman, experience it, to know its functions, to involve itself in enacting these functions for the sake of harmony and perfection of the humanity. Based on this mythical language a technology evolved in the remote past and it is this technology that goes by the name Vāstu sastra or Vāstu tantra. The direct and exact meaning of the word Tantra is technology. Vāstu Veda is science and Vāstu sāstra or Vāstu tantra is technology. These two do not have separate existence ; with certainty I could say they are co-existent. The two important places where this science and technology are conjointly set in action are Chidambaram of Nataraja and Srirangam of Rangaraja. The roots of our

scientific tradition have been treasured in these temples of space-science.

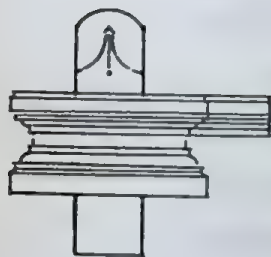
The conceptual form of Viswakarma has been fashioned by the traditional shilpins as of having five faces. These shilpins hold Viswakarma, also called Viswa Brahma and Vastu Brahma, as the Supreme



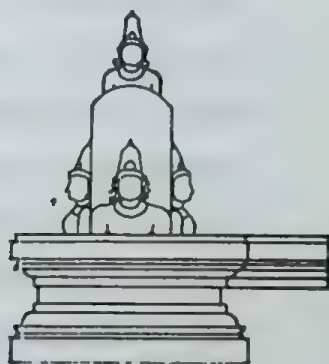
The five faced Brahman

Brahman, the Primal Lord, Eternal Substance and Conscious substance. Viswa Brahma may be considered as potential energy and Viswakarma as embodied energy. Both these energies come into one as to become pervasive substance known as space (வின்பொருள்). Matter is contained within energy and it exists inseparably with the energy. Since it is not visible to the human eyes, the same Viswa Brahman came to be known as linga, which

is a specific form without faces. This linga form, which we call ākāśa or supreme space is considered to be the basic form of all the corporeal objects. Viswa Brahma shines forth as tattva and Viswakarman shines forth as the active and functional state of tattva. It is the form of Viswakarma endowed with



Lingam



Mukha lingam

five faces that came to be regarded in Saivism as the form of Sadāsiva. Between the form of Viswakarma and that of Sadāsiva there are much similarities. Isāna, Tatpurusha, Aghora, Vāmadeva and Sadyojata - these are the names of five faces of Viswakarma. The five faces of Sadāsiva are also called by the same names.

There is a much celebrated and widely known verse of meditation (dhyāna sloka) for Viswakarma, which verse occurs in the Narayana Yājñikopaniṣad belonging to the Kṛṣṇa Yajur Veda. The dhyāna sloka is as follows:

पञ्चवक्त्रं जटाभारं दश पञ्चविलोचनम् ।
 सद्यो जाताननं स्वेतं वामदेवन्तु कृष्णकम् ॥
 अघोरं रक्तवर्णचं तत्पुरुषं हरित प्रभम् ।
 ईशानं श्याम वर्णच शरीरं हेमवर्णकम् ॥
 दश बाहुसमायुक्तं कर्णकुण्डल शोभितम् ।
 पीतांबर धरं देवं नागयज्ञोपवीतिनम् ॥
 रुद्राक्षमालाभरणं व्याघ्रचर्मोत्तरीयकम् ।
 अक्षमालाञ्च पद्मञ्च नागशूलपिनाकिनम् ॥
 मेरुं वीणां च बाणञ्च शंखचक्र प्रकीर्तितम् ।
 कोटि सूर्य प्रतीकाशं सर्वजीव दयापरम् ॥
 देवदेव महादेवं विश्वकर्म जगत्पुरुम्

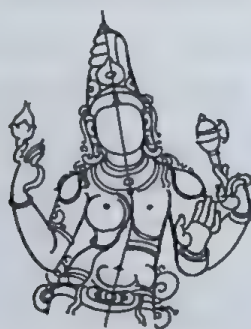
"Viswakarma, the jagadguru (the World-Preceptor) the most supreme Deva among the devas, is endowed with five faces, each face having three eyes ; he is adorned with the crown of matted-hair; of the five faces, Sadyojata face is of white colour, Vamadeva face is of black colour ; Aghora face is of red colour; Tatpuruṣa face is of yellow colour

and Isana face is of bluish black colour ; his whole body is of golden colour. He is with ten hands which are holding rosary of rudraksa, lotus, snake- noose, trident, pinaka-bow, mount meru, vina, arrow, conch and wheel. His ears are adorned with ear-rings (kundala); he is wearing yellow silk-cloth around his waist ; wearing tiger-skin as the upper garment, he is adorned with the sacred thread of snake and rosary of rudraksa". In this description, the term 'meru' denotes super structure of a temple. It also denotes 'pyramid', The equivalent term for the 'meru' is pyramid.

The conceptual form of Viswakarma as associated with five faces is indicative of a mysterious phenomenon. The mythological tradition and the religious tradition hold that once upon a time Brahma was having five faces and after his upper head was nipped off by Siva, he became four-faced Brahma. There is a place called Kandiyur near Thiruvaiyaru, Tanjore district, Tamilnadu. The local mythological work (sthala purana) and the Skanda Purana narrate how this name Kandiyar was ascribed to that place. It was the place where Brahman's head was cut off (khandana - meaning cut off) Does not

this Brahma with five faces points out to the manifest form of Vastu Brahma with five faces ?.

One more significant and important sculpture is the image of Ardha- nāriswara, seen in the back side of the garbha-graha of Thiruvaiyāru temple. The significant feature of this image is the delineation of



Ardhanārī of Thiruvaiyāru

its right side with female features and the left side with male features. In Ardhanariswara images, normally left side is female and right side is male. The image which we see in Thiruvaiyaru, is known as Adi-Ammaiyappar - that is the first image of Ardhanarisvara. This is a very beautiful image in which dominance and preference are attributed to mother-aspect. This form contains in itself a subtle concept of scientific importance. This is the form which reveals the principles related to the Sāktheism

in which we could see innumerable concepts of science. The traditional shilpins who sculptured this image were the followers of Sāktheism, that is Saiva-oriented Sāktheism. They did not belong to the Sakti cult of later period. Space that is Siva, manifests from Sakti ; space itself, being vitalised and vibrated by Sakti, turns into macrocosmic and microcosmic forms. This fundamental theory is depicted in this Ardhanariswara form, in which sakti aspect is shown first. The message revealed through this image is that Energy changes into space and space changes into spatial forms. I venture to say that only in this unique image that Einstein's equation $E=mc^2$ gets fully illustrated. Ardhanariswara form in which Sakti is seen on left side came into existence only at a later period. In this form space, (Siva) has been depicted as energy-contained. Even in the form of Nataraja, we observe that Siva is able to dance only due to the rhythmic vibration of Sakti (Energy). The famous saying that 'without sakti, no siva' is illustrative and supportive of this concept. This being the case, there is a mythological story that Sakti was defeated by Siva in a dance competition. This may be victory for religious tradition, not for scientific tradition. Defeat of Sakti, i.e. energy is the defeat of science.

In the same way, a modification was effected in the five-faced Brahma form. Because of this modification five faced Brahma turned into four-faced Brahma, and it became easy for the interpreters to explain that the four faces denoted the four Vedas. But what is still prevalent is the worship of four-faced Brahman as the Vāstu Brahma exactly at the centre of Vāstu puruṣa mandala. Brahma being worshiped here is the same old Vāstu Brahma. The Sivāgama Dhyāna Ratnāvali states: "karnika madhye vāstu brahmānam arcayet" - meaning, 'at the centre of pericarp of the lotus of brahma pada, one should worship vāstu brahma'. This indicates the important place accorded to Vāstu Brahma in the process of worship.

In the famous Viswanatha temple at Varanasi the image of Viswakarma has been installed and it is still worshiped. In almost all the shops around Varanasi temple, images of Viswakarma are sold in large number. In West Bengal, the principle of Viswakarma is widely known, his image adored and worshipped. The May Day is celebrated there as Viswakarma day. In the Karnāṭaka state there are many temples dedicated exclusively to Viswakarma. In Punjab the Viswakarma cult is prevalent in large

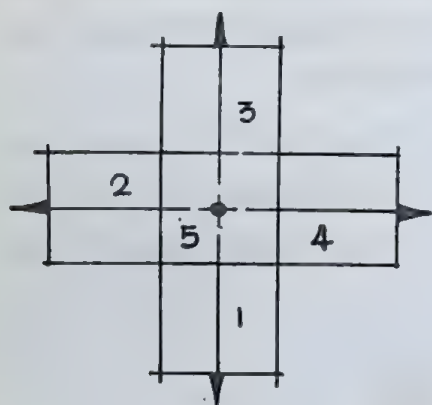
scale. In the Kalikambal temple, Madras, an image of Viswakarma has been installed. In the houses of the traditional shilpins, we could see various types of images of Viswakarma. In invitations and communications, the traditional shilpins use to write first, the mantra 'om virāt viswa brahmane namah'. All these details prove the vitality and great role being commanded by Viswakarma.

How is the divine form of Viswakarma depicted? Four faces, each one facing the cardinal direction and one upper face sculptured at the



Virat Viswakarman

mid-region between the four faces. This type of image is the oldest and scientific. In later period, these five faces were shown horizontally in one line. The image of Viswakarma, i.e, the oldest form, depicts the scientific process in which bindu (energy drop) splits and streams forth as energy lines in all



Flow of energy from the centre of Bindu, creating directional lines

the four directions. The same scientific concept is depicted in panca-mukha linga also. In this image, four faces are sculptured around the central shaft, so as to face each direction. The fifth face is not depicted visibly, since this face, called Isana, represents the principle of space. This face is ideated to be on the crest of the central shaft (linga). This may be considered as the modified version of Viswakarma form. In another type of panca-mukha-linga, the fifth face, Isana is sculptured on the top of the central shaft so as to face the

direction of east. How these meaningful depictions have been forgotten, I could not say. What I understand is that these images symbolise great and immaculate scientific themes.

We are coming to the next important theme - a discussion on the Pranava Veda.

If it is said that four faces of Brahma represent four Vedas, then logically is it not correct to hold that the five faces of Vāstu Brahma represent five Vedas ? Yes, it is so. If so, what are the names of the five Vedas ? In addition to the four vedas - Rg, Yajur, Sama and Atharvana, there is one more important Veda, namely Pranava Veda. The traditional shilpins are even now mentioning about these five vedas, Traditionally it has been held that the Pranava Veda is the Veda of the shilpins. This Pranava Veda is even considered to be a part of Atharvana Veda. But the paining fact is that certain group of scholars speak only of three Vedas, leaving out the Atharva Veda. They quote Purusha sūkta and the Bhagavad gita as evidences. Since the fundamental and supportive themes for the relevance, validity and benefits of image worship are embodied in the Atharvana Veda, the ancient shilpins claimed

that they belonged to the Atharvana Veda-lineage. There is Vāstu sūtropanishad belonging to the Atharvana Veda. This is a wonderful and authentic text dealing with the science of image.

A question may arise: "Are the Vedas essential for the shilpins ?". The Vāstu sastras insist that a sthapati or shilpi should be well-versed in the Vedas.

"sthapatih, sarva sāstrajñah, vedavit - sāstra pāragah"

स्थपतिः सर्वशास्त्रज्ञः वेदविच्छास्त्रपारगः

There was another opinion with regard to the Vedas. In the beginning there was only one Veda. It was Vyāsa who divided and compiled into four and gave the four Vedas to four Rishis. This has been told in the Skanda Purana. If so, what was the name of the veda when it was in an undivided form ? To this question, the Bhāgavata answers :

एक एव पुरा वेद प्रणवो सर्ववाङ्मयः

"eka eva purā veda pranavo sarva vānmayah" This means : "before the division of the Vedas, there was only one Veda and its name was Pranava, which is of the nature of all sound-forms". The Nagara Kānda of the Skanda Purana also speaks of this Pranava veda. The Nagara Kānda has been commented upon

in Kannada language. But this important part of the Skānda purana has been deleted from the main body in the recent editions of the Skanda Purana. There is a story related to Muruga (Subrahmanya) and Brahma. When Muruga, who has known the essence of Pranava Veda, asked Brahma about the meaning of OM, Brahman was not able to answer and on this account he was imprisoned. This has been narrated in the Skanda Purana. What Muruga expected from Brahma was the scientific explanation of OM and this was unknown to Brahma. It is the Pranava Veda that deals with the science of Pranava. The same scientific truth is illustrated in Chidambaram and Srirangam temples.

So far what I tried to explain are the concept of five-faced Viswakarma and the reason for assuming the name of Viswakarama by Mayan. Viswakarma means the Primal Existence or Supreme God who created the world, worldly beings and worldly objects. When Mayan introduces himself to Arjuna, he says : "I myself am Viswakarma" There is a notable significance in this statement. Mayan identifies himself with Viswakarma, not out of self-adoration or conceited thought. The traditional shilpins never resorted to such self-adoration or

self-boasting. They were so humble. But what were those creations accomplished by the shilpins which compelled others to compare them with Viswakarma who created the world ? How these creations could be compared with those of Viswakarma, the God ? We have to think about.

To evolve a theme, to create an object, to symbolise a principle, mere feeling or will is not enough. To bring it into existence, to manifest it as conceived in the inner space, knowledge of proportionate measurement is very much essential. In short, a scale or a mathematical order is necessary to frame our ideas into corresponding structures. Viswakarma should have certainly employed a particular system of scale to execute his creative plans and activities. All his creations are material forms, visual forms. Mayan, being endowed with supernal knowledge-potency, was able to identify the system of scale used by Viswakarma, understood its operational process, imparted these secrets to the traditional shilpins and enabled them to render all their creations as living organisms and inspired objects. It was on this account, as being the first employer of the scale of Viswakarma, that Mayan

made himself known as Viswakarma. Being the knower of Viswakarma, follower of His scale and grammar of His creations or manifest forms he was entitled to call himself Viswakarma. Do not the knowers of Brahman turn into Brāhman himself (brahmavit- brahmaiva bhavati). All the traditional shilpins who know the secrets of scale and the science of measurement are legitimately called Viswakarmas. I have only hinted at this 'scale' ; not explained here. It will be dealt with in a separate book.

The field of music, being science-based is basically an experiential field (அனுபவத்துறை). It is meant for actual experience. In the same way, the tradition of Vāstu is also an experiential field being science-based. Einstein told that 'science should be religion' only in the sense that if science itself becomes religion, then that religion, having subsequently turned into experiential religion, would become a perennial source of harmony and bliss. This science-turned religion was in its exalted state in India. The role of the tradition of Vāstu in elevating the science-based religion to the exalted state is very great. That is why, once upon a time,

our religion was called vāstu religion (வாஸ்து சமயம்) and temple-religion (கோயிற் சமயம்).

The creations of the tradition of Vāstu are universal and spiritual in the same way as the compositions related to poetry, music and dance are universal and spiritual. In the tradition of Vāstu, there is no hardship of caste or regional distinctions. But this Vāstu shilpa, turned into lineage oriented, that is community-based not caste-based being confined within the tradition of shilpins. Recently this science had been made available to all through a college curriculum, evolved with the help of the Government of Tamilnadu. I want to state here with humility and proud, that in this regard, both my father Sri.Vaidyanatha Sthapati and myself have been the pioneers.

It is a great and mysterious wonder to notice how the modern science which has actualised so many accomplishments to be marvelled and applauded, has failed to know about the crowning element, the space. This space has been materialised into actual experience of bliss and harmony by the tradition of Vāstu which attained its stability even

10,000 years ago. Our tradition of Vāstu, which has gained mastery over space-science and over the energy that manifests from it, has fulfilled a great accomplishment by having touched the cosmic roots. As a result, we have become privileged to experience spiritual bliss and ultimately the Space-bliss.

In each and every country of the world, there has evolved a particular tradition in poetry, music, dance, sculpture and architecture according to the regional characteristics, and this tradition has been followed and preserved. There is an exigent need to bring together the world traditions related to poetry, music, dance, sculpture and architecture and the Indian tradition of these five fields, under one canopy and on a common platform, and analyse and examine the nature and standard of feelings and experiences without any bias. If this is done, we could easily observe that our Indian tradition of poetry, music, dance, sculpture and architecture is excelling all other traditions of the world in all respects; we could also realise that this tradition is capable of transporting us to an entirely different plane of existence and install us in a state of perfect bliss and spiritual comforts.

What is the basic reason for this uniqueness and supremacy of Indian tradition ? The answer provided by the tradition of Vāstu is the underlying knowledge of science concerned with light and sound. We cannot say that there is a separate and distinct 'sound' exclusively for our (Indian) usage only. This sound, having emanated of its own accord from the inner space, and being a common source for all people of the world is capable of bringing them and unifying them under one shade. This is just like air, fire, water and earth which are common to one and all. While in the sound-state, the Veda calls it 'nāda brahma' and while in articulated state, it calls it 'śabdabrahma'

Leaving behind the aural form for the time being, let us examine the nature of visual objects. We have already seen that OM-sound is the basis for all aural forms or word-patterns. Likewise, Om-light is the basic source for all visual forms. It is pertinent to call all those which originated from OM-light by the name 'luminous words' (ஒளிச் சொற்கள்). By their own nature, they shine forth as luminous words - this is the great truth revealed by

the science of Vāstu. These could also be called luminous substances (ஒளிப்பொருள்).

On par with the uttered sound-form, there are exactly visual forms that are seen. In the absence of or in non-existence of an object, there could not be a corresponding word. Where there is object, there is word. Therefore, if there is grammar for word in order to understand word-patterns, there should also be grammar for form or object, in order to understand form-patterns. Only on this basis, in our country, there evolved a grammatical order for form or substance. It is this substance that is called Vastu in Tamil and in Sanskrit as well. The grammar for form or existential substance is known as Vastu lakshana and Vāstu lakshana. All the scriptures dealing with this grammar are called Vastu Sāstra and Vāstu Sāstra.

For both the grammar of word and that of form, there is a common scientific basis. I have explained this scientific basis in previous pages, keeping Chidambaram and Srirangam as the central theme.

I have explained earlier that Vastu is eternal substance and essence of the universe. It is the

energy, consciousness and light ; it is equated to E in the equation $E=mc^2$. Vāstu is the manifest energy, materialised into objects of nature and it is equated with mc^2 of the said equation. I have picturised Nataraja and Rangarāja as the qualities or qualitative forms of Vastu and Vāstu respectively.

The qualities themselves turn into earth, earthly objects, and objects of the universe. In order to manifest these qualities, the inner space creates time and turns into timal waves or vilnational waves and frequency of vibration or rhythm. The timal waves are the subtle and gross waves created by both the inner space and outer space respectively. It is these waves created by space that are responsible for our inner vision. They constitute basic energy (மூலஆற்றல்). The rhythmic dance of these waves is known as the Dance of light. These are subject to rhythm. So also the dance of sound takes place. Both the light form and the aural form are one and the same. Having closely watched the rhythmic movements of sound and light, grammar of language and of form were formulated. Both the aural forms and luminous forms are pleasing and charming, since they are based on such grammar of rhythm.

You have already accepted the view that both poetry and music belong to aural Tamil (ஒலித்தமிழ்). Now, you would accept this view also that sculpture and architecture belong to visual Tamil (ஒளித்தமிழ்). These could be said as Tamil heard through ears and Tamil seen through eyes. That kind of Tamil in which we see the pleasing blend of aural Tamil and visual Tamil is the Dance-Tamil (நடத்தமிழ்). So there has been for a long time a wide spread currency of the term 'Triple Tamil' (முத்தமிழ்). Taking into account both sculpture and architecture, we have to say 'pentadic Tamil' (ஐந்தமிழ்). I request the scholars to give a wider currency to the justifiable and most consistent term 'pentadic Tamil'. What we call 'panca-marapu' in Tamil, actually denotes the fivefold Tamil comprising poetry, music, dance, sculpture and architecture. The whole universe is characterised by such pentadism - five sounds, five metals, five colours, five instruments of knowledge, five instruments of action, five actions, five planets, five elements and so forth. The universe expands in terms of pentadic group and hence it is called 'prapanca'

The same point I placed before the scholars when I spoke on 04.01.1995 in the 8th World Conference on Tamil, conducted in Tanjore. I requested them to bring the term ‘(ஐந்தமிழ்)’ into wider usage. I offer my salutations to Vastu and Vāstu which made the pentadic tradition (பஞ்சமரபு) that was lying dormant for the centuries, to flower in my mind.

TEMPLES OF SPACE-SCIENCE

Dr. K.V. RAMAN, Professor and Head, Department of Ancient History and Archaeology, Madras University (Retd).

Dr. K.V. RAMAN took his M.A. Degree from Madras Christian College, Tambaram and Diploma in Archaeology from the Schools of Archaeology, New Delhi. He was awarded the Master of Letters degree for his thesis 'The Early History of the Madras Region' (1937) and Doctor of Philosophy for his thesis 'Sri. Varadarajaswamy Temple, Kanchipuram' (1969). Both the works have been published. He served as the Superintending Archaeologist in the Archaeological Survey of India before he joined as the Professor and Head of the Department of Ancient History and Archaeology, University of Madras in 1976. He has conducted a number of excavations in the historical places like Kaveripattinam, Kanchipuram, Adamankottai and Karaikadu (Tamilnadu) and Cranganore (Kerala). He received the UNESCO regional education award for his discoveries at Kaveripattinam. He visited Canada (1980), Thailand (1981) on lecture tours and Japan (1982) as a Visiting Professor; U.S.A. (1983) as a Fulbright Fellow; Malaysia (1988) and U.K. as a Senior Fellow of The Association of the Commonwealth Universities (1989). His publication include the following books: Some Aspects of Pandian History (1972). Socio Cultural change in the village in Tiruchirapalli District (Tokyo, 1983) and Excavations in Uraiyur (ed. 1988), Principles and Methods of Archaeology (1989) and Sculptural Art of Tirumala Tirupati Temple (1993), besides more than 100 research papers on various aspects of art and archaeology. He is a member of the Advisory Board of

Archaeology, Government of India and also Government of Tamilnadu. He presided over the Ancient India Section of the 46th session of the Indian History Congress in December, 1985 and The Numismatics Society of India at Shantiniketan, 1989. He is now the General President of the South Indian Numismatics Society. For the last four years he has toured South East Asian countries and published papers of India's cultural links with them.

The temple art and architecture of India constitute a wonderful product of the creative and spiritual genius of this sub- continent and a priceless gift to the human civilization. What a variety of forms, what a variety of its parts and what a variety of its sculptural contents and decorative embellishments: They are as varied as the languages and since that constitute things of a hoary land. Yet, there is an under current of unity, the golden thread of spiritualism that runs through the diverse forms and the myriad motifs. Who were the authors of these remarkable monuments? — the silent, the nameless and self-effacing master architects? Were they simply following the rule of the thumb and turning out the structures mechanically or were they inspired by higher ideals and expressing their inner spiritual and creative urges? What is the deeper significance and meaning of this edifice called the temple? prasada? How did our forefathers visualise or conceptualise the temple? These important questions are discussed and sought to be answered by one of India's most outstanding and articulate Sthapathis Thiru. V. Ganapati Sthapati. I was thrilled to go through this book *Temples of Space-Science* which I consider as an eloquent exposition of the Science and Spiritualism that had gone into the

making up of the temple. Coming from an ancient and distinguished family of architects and designer of several architectural landmarks in India and abroad and above all the teacher who has trained several younger architects and sculptors at Mahabalipuram, Shri Ganapati Sthapati's voice is the voice of the generations of architects who had guarded and presented the tradition steadfastly through the centuries. No wonder, every sentence, nay every word used in this book pulsates with his inner feeling and deeper thought. His thoughts and language flow vying with each other in a smooth and uninterrupted stream.

He describes the temple as a "built space" and "embodied energy" (Prāsāda Purusha) in accordance with the Vāstu Sāstras. He holds that the Vāstu-Silpa tradition was the source of Indian Science and Technology. The science of Vāstu is a unique science of Energy, Time, Space and Spatial forms. It is anchored in the concept of free space as a "Space of energy", capable of experiencing, vibrating and vibrations turning themselves into forms. He observes beautifully:

"If a part of the free space is isolated and confined by a four walled structure called 'building', it becomes a living organism and it pulsates with life". It is just as we confine a part of free space within our body and call ourselves "living beings". It is in the words of Mayan, the legendary architect, Vastu that turns into Vāstu (Vastruēva Vāstu) the subtle turns into gross, space itself turns into spatial forms. The vast free space looking amorphous possesses indeed a well-defined form of a cube with square as its plan. According to Vāstu science, he points out, the square is the primal manifest form of

the unmanifest and on this plan any abode founded and developed becomes divine. The spatial diagram is called Vāstu Puruṣha Mandala which is indeed an energy-grid with concentric square belts called from the central part — Brahma pada, Deivika- pada, Mānusha-pada and Paisāchika-pada — pada meaning space. In this configuration of spaces the central part, the nucleus is taken as the energy centre.

Thiru. V. Ganapati Sthapati states that our temples are products of spiritual science. While the modern science searches energy in the matter, Vāstu science recognises matter in energy. This science conceives of a house as a living organism and a musical form so that the inhabitants of the house can derive the serenity of the music besides the spiritual solace. This is achieved by Vāstu-rahasya or Vijnāna. The shrine of Chidambaram is like a tiled wooden house. Inside, there is only vacant space, like the Ākāśa outside. The vibrations that emanate from the inner space touch us and create vibrations in us and the two get turned into a harmony like the sound of the two veenas in the same sthāyi get identified. This response is called bhakti or love and this is the key to inner peace and spiritual health.

So, the shrine of Chidambaram is a house of light, where light is worshiped and wherein light is dancing in the form of the lord. The concept of cosmic dance also denotes this aspect. According to the Vāstu science, every house, all our houses where the humans live, built according to the science and its principles would be spiritual abodes. The Tamil term 'Veedu' is the same for the house and also the heavens.

Just as 'Ākāśa' is the vast space, the earth is another manifestation of space. Mayamatam states that the Earth is the pre-eminent matter (Bhūmihi pradhāna vastu syāt). Vāstu-purusha is represented or personified by Vishnu. In accordance with this concept, the archakas invite the Vāstu-purusha every morning in this shrine of Sriranganathar at Srirangam. Sthapatiar is thrilled with joy of tears by this and pays his homage to the archakas for maintaining this great tradition. Appropriately, the ancient icons of Vishnu were made of earth which is gross energy. If Nataraja represents the ākāśa-tatva, Vishnu represents prithvi-tatva.

Equally illuminating is his explanation of the relationship between light and sound which he calls nāda brahmam. The book is full of profound reflections and the many facets of the Vāstu-science which have not been publicised properly so far. Thiru. V. Ganapati Sthapati dispells many misunderstandings born of sectarian outlook. After going through his brilliant, original and eloquent exposition of an ancient Vāstu-sāstra in the light of an ancient texts like Mayamata, Upanishads, Agamas and Tamil works one can view our temple not only as an abode of God but a form of God — Vāstu-purusha. He has redefined the subtleties of this ancient science which lay obscured by time. He has been doing this noble service both by his speeches, writings and above all his monumental creations in India and abroad. May his service grow from strength to strength and inspire the younger sthapatthis and lay devotees.

Dr. K.V. Raman

Reflections on Ganapati Sthapati's Temples of Space-science

Dr. S.P. Sabharathnam

A professor of Agamic and Vāstu sciences, Dr. S.P. Sabharathnam is contributing riches to the promotion and propagation of timeless tradition, deeply rooted in the Agamas and Vāstu Vedas. Fortunately he is a student of physics as well. Being a multi-lingual scholar, he has specialised in the Vedas, Agamas, Sthāpatya Vedas and the allied scriptures available both in Sanskrit and in Tamil. He has translated more than eight Agamas into English. He has presented research papers in more than hundreds of seminars and conferences held at national and international levels. One of his papers got him the title F.I.S.E (Fellow of the International Society of Ecology). He has travelled abroad and conducted courses on Agamas and temple, bringing out the significance of the science of Agamic rituals. His interpretation of Rg Vedic and Sama Vedic mantras in the light and background of the Agamas and Vāstu Sastras, in an international seminar held at Vārānasi, has inspired many Vedic scholars of both India and Abroad to have new insight and appropriate approach for the Vedic studies. He is guiding many scholars in this field. He is of the view that bereft of Agamas and Silpa Sastras, the Vedas would remain as a temple closed down for ever.

“Laksana Prakāśārtham silpa vidyā”

*“The science of silpa is meant for
illuminating the innate characteristics
of space and spatial forms”*

— Vāstu sūtropanisad : VI : 3.

“The understanding of the language of form, left inoperative in a society dominated by purely literary education and almost exclusive dependence on verbal

and written communication, has nowadays almost vanished” - such a distressing note has been given by Alice Boner in her introduction to the Vāstu sūtropanisad. It is still painful to observe that not only the language of form and edifying structure but also the sacred texts of the Vedas and the Upanisads have not been understood in their exactness and intended purport. We are yet to see faithful translation of the Vedas and the Upanishads, a translation perfectly attuned to the basic melodies and tunes of the original texts. Those translations of the Vedas and the Upanishads which are not based on the Agamas and the Vāstu Sāstras do keep us only at the threshold and they fail to lead us atleast to the proximity of the main shrine. This much is enough to emphasise the importance of the study of the Agamas and the Vāstu Sāstras.

At a time when the study of Vāstu Sastra was not systematically pursued and when even the Vedic seers stood bewildered, being unable to know the value and importance of images and figurative structures, Sage Pippalāda appeared to rescue them and imparted the knowledge of Vāstu. He hammered into their minds the greatness and significance of image-constructs and demonstrated the efficacy of image-constructs in elevating the souls to the highest point of perfection and bliss. He maintained that the functional efficacy of image and icon is more powerful than that of sacrificial practices. Pippalāda addresses Sthapatis as silpodgātru, silpa hotru and Vāstu hotru, keeping them on par with Vedic priests

who had been called Hotr, Udgātr, etc. I offer my encomium to Pippalāda for having taken such a bold step! He was perfectly right in legitimately calling them so. Because, at each time the Sthapati completes a sculpture or a structure he indeed accomplishes a sacrifice, more powerful than the ritualistic sacrifice.

Mayan, the father and progenitor of the science of Vastu has given to us innumerable original works on Vastu and Vāstu but those works still remain in obscurity. Mayan's works were in need of one more Pippalāda to unearth them and elucidate them. Mayan's principal Lord Ādayallan or the Great Time-god (காலமாக் கடவுள்) has been kind enough to choose our Ganapati Sthapati to accomplish the task of rescuing Mayan's immortal works and install them in their appropriate niches. As a person who has closely moved with him and who has understood his spirit and pulse, I am inspired to call Ganapati Sthapati, the Sage Pippalada of 20th century. In many respects and perspectives his inspiring work titled "Temples of Space-Science" could fittingly be equated with the Vāstu Sūtropanisad of Pippalada.

Temples of Space-Science : General structure

The wonderful, inspiring and enlightening book, titled "Temples of space-science" itself shines forth like a Chidambaram and Srirangam, not distanced by space nor detached by time. It is comparable with a beautiful space-temple in the main shrine of which, Lord Siva the

Vastu and Lord Vishnu, the Vāstu are installed, adored and extolled. It enshrines in itself other images also, such as Ādi Ammaiyappar, Anantapadmanābha swāmi and so forth. The scientific concepts, truths and elucidations about space and spatial forms are the varied objects of fragrance collected and kept inside the temple. Above all, there is the resounding bell also! It is our author's voice inviting the attention of the devoted readers. (If the readers tune themselves properly while reading this book, they could hear his voice also).

This temple-book consists of six sectional writings. First writing (உரை) is from the heart (நெஞ்சுரை) which echoes the author's unfailing traditional consciousness, his humility and his reverence towards the authorities, scholars and philanthropists.

The second writing is indicative of space and its form and of author's vibrancy. Hence (விண்ணுரை). It is in this section that the scintillating and meaningful term "Vin-jnānam" (விண் ஞானம்) is first introduced to the readers. Ganapati Sthapati is the First Author to coin this term for the first time. By this coinage, he proves himself to be a sculptor of language also (மொழிச் சிற்பி). For him, the chisel and the pen are one and the same. A discerning mind would clearly understand that this beautiful term விண் ஞானம் itself is capable of revealing the entire subject matter.

While the second section indicates the temple from a distance, the third section, (அகழ்வுரை) introductory writing (by introductory I do not mean preface) - serves as a leading road to the temple. This section may be called "sannidhi street". This section is as important as the main text in the sense that it fittingly introduces the book to the reader in its proper setting. Er.Sri.Ramamurthy, who has closely moved with Sthapati for more than two decades and understood his "SOUL", has written his informative and inspiring introductory section. It prepares the mind for the deep study of the text. It breathes into the mind courage and competency to enter the Temple and see the Truth face to face. This is the section not to be skipped.

The fourth, fifth and sixth sections (முன்னுரை, கட்டுரை, பின்னுரை) constitute the main theme of the book.

The style employed by the author is so simple and lucid that it actually echoes his inner voice. While reading, we can actually feel as though he is speaking the subject-matter well in front of us. Through his simplicity of style he effects transparency even to the subtle and intricate concepts. The theme chosen by the author is the First of its kind.

A short analysis of the subject matter :
Greatness of Vāstu Vijnāna

The author establishes the greatness and perennial applicability and utility of Vāstu Vijnāna that comes

down through the ages from time immemorial with unbroken tradition through many illustrations and explanations. He speaks about Vastu Vijnāna and Vāstu Vijnāna, the twin sciences which exist and function inseparably. The science of Primal Existence is Vastu Vijnāna and the science of Materialised Existence is Vāstu Vijnāna. They are the sciences of pure knowledge and applied knowledge. They are the sciences of light and sound, space and time, forms and images or structural forms. They are not two independent streams running in different directions. They are one and the same. In its broader sense, Vastu Vijnāna includes Vāstu Vijnāna also. Vāstu Vijnāna is a great science capable of effecting form to the formless and name to the nameless and ultimately leading the seeking soul from the form-plane to the formless plane. (7). It enables man to see the Vastu Brahman or the Supreme Lord face to face. Through its mathematical calculations and its perfect scheme of imaging and iconising, it has shown the feet and crown of the Almighty (20). Vāstu Vijnāna creates houses, buildings and temples, etc. so as to be perfect living beings and enables men to experience the bliss, harmony and total identity. Its sole aim is to create things so as to be in exact similitude and harmony with Nature. It provides infallible and effective mathematical calculations for the construction of houses and buildings and thereby make the people experience the bliss that is derived from going to the Temple. (31). The role of

Vastu Vijnana in raising the religion to the state of science is indeed unestimable (156).

Vastu - Vāstu :

The term 'Vāstu' has now become almost a common word. Most of the Institutions and Associations are now speaking about Vāstu, some pertinently and some impertinently. I have fear about the exploitation of the term Vāstu by fake institutions and imposters. It becomes imperative on the part of readers to understand the significant meaning of the terms Vastu and Vāstu. I would say that Ganapati Sthapati is the first author who clearly and convincingly explains the difference between Vastu and Vāstu, even though these two terms have already been employed in the Vedas and the Silpa Sāstras. In almost all of his papers, writings and books, our Sthapati has written elaborately about Vastu and Vāstu and he excels in this book on Temples of space-science in his presentations and expositions on Vastu and Vāstu. To summarise his views: The term Vastu is derived from the root 'vas', meaning 'to live, to exist' and as such Vastu means the eternal existence, eternal being, the whole and complete being. There is another term in Sānskrit to denote existence: 'Sat'. But there is a difference between sat and vastu. Sat denotes passive existence. Vastu denotes dynamic existence, an existence ever being in rhythmic vibrancy. Vastu is the subtle and unmanifest energy: it is the energy containing matter. (M in E).

The concretised or materialised Vastu is Vāstu. Vāstu denotes all the worlds and worldly objects and beings. Basically, it is the same existence as Vastu, with a difference in its state. Vāstu is gross and manifest energy. It is the matter containing energy (E in M). Just as gold turns into golden ornament, even so Vastu itself turns into Vāstu. "Vasturev Vāstu" - is the most subtle and scientific formula being upheld in the Vāstu tradition (34,90,104, 106, 107). The scriptures speak of Brahman becoming the world and worldly objects and individual beings. Indeed that Brahman is Vastu Brahman only. Vastu turns into Vāstu; so also we could say that Brahman turns into Brāhman and everything and everybody is Brāhman.

Vastu Purusa and Vāstu Purusa

When Vastu, the unmanifest energy assumes a form, it becomes known as Vāstu Purusa. The energy contained in Vāstu or the earth is called Vāstu Purusa (34, 68). The author, with all vividness, explains the functional process of Vastu purusa and Vāstu purusa. He sets forth the significant and symbolic truths about Chidambaram and Srirangam - the temples of space-science in terms of Vastu purusa and Vāstu purusa respectively.

Vāstu Purusa is always in vibrant state through his innate feeling and will and by his vibrancy he makes all those things that are in union with him to rhythmically vibrate. In reality Vāstu Purusa is not a demon, though

there are some mythical fabrications depicting his demoniac nature. He is the manifest form of energy and he presents himself inside each cubic atom of the earth.

The term “purusa” very frequently occurring in the Vedas, Agamas and the Upanishads essentially denotes Vāstu purusa only. The Rg vedic Purusa Sūkta is an energetic hymn on Vāstu Purusa only.

“This space is honey to all beings and all beings are honey to this space. This shining immortal Purusa who is in this space is honey to all beings and all beings are honey to this Purusa. This shining immortal Purusa who dwells in the body as the space in the heart is honey to all beings and all beings are honey to this Purusa.”

So declares the Brhadaranyaka Upanisad (II : 5.10) The extolled Purusa is none other than Vāstu purusa. All the elucidations given by the author shed more light on this and similar passages of the Upanisads.

The square design or motif in which Vāstu Purusa exists associated with cosmic forces is known as Vāstu purusa mandala. There are 32 types of Vāstu purusa mandala out of which two are very important - mandūka vāstu and paramasāyika vāstu. In fact these mandalas pervade the whole cosmic structure; they pervade all the objects and beings existing in different planes of the whole universe. Every seed is containing this mandala. Ganapati Sthapati has vividly explained the cosmic science behind the Vāstu purusa mandala (114, 115, 117,

118). He ascertains that Vāstu purusa mandala is the most subtle aspect of Vastu vijnāna (148).

Time and Time-God

Having set forth the essential characteristics of Vastu, Vāstu and Vāstu purusa, the author addresses himself to speak about Vastu as Time. He states, based on Mayan's works, that the very throbbing of the Vastu or Mūlam prior to its action is the beginning of Time. In the Vāstu Vedic tradition it is held that the vibration or force of energy-space is called Time (Kāla). In the process of space changing into spatial forms, actually it is the Time that metamorphoses into the material forms of the universe. The Vāstu science is deeply rooted in this concept of Time. The views on Time expressed by Sthapati in his key note address at the Congress on Ancient Sciences and Technologies held at Indian Institute of Technology, Bombay, have been treated elaborately in this book. He speaks of Time and Time-waves. Varied types of measurements and iconometric calculations and derivations are nothing but modified forms of Time-waves. The author expounds in this book the role and importance of Time in creating houses, buildings, temples, images, etc.

It is Vāstu Purusa himself who functions as Time-God (Kāla purusa) whose greatness is hymnised in the Atharva Veda. Time functions as silpi (77). In fact it is the Time that creates the fivefold Tamil.

Space and Trinity of Space

Space is the dearest subject for Ganapati Sthapati to speak about and to write about and in this book he has devoted much space for SPACE.

Space is a great vastness in which subtle atoms (paramānu) exist without space between them. In Mayan's works, this subtle atom is called vin-karu (விண் கரு) space-foetus. In Sanskrit works, it is called **tejo bindu** and **brahma bindu**. Subtle atoms (paramānus) are in light form and sound form and these serve as the basic material for external manifestation. (37) They possess the quality of being and becoming. Space which is filled with subtle and luminous atoms is the primal cause for all creations. Time itself is originated by space which is always vibrant. All beings grow from foetus form to the featured form based on the frequency of space-throbs (63).

The Sarva-jñānottara Āgama states that every seed contains space- element and only those seeds which contain space-element are capable of sprouting and the seeds which do not contain space-element do not sprout. So it becomes clear that space is the primal cause for creation.

The author states based on Vāstu sāstras that there are three spaces - outer or universal space, built or enclosed space and inner space within one's own heart. To experience peace, health and bliss, there should be perfect harmony between these three spaces. Temples of

space-science have been explained in this book against the background of space- harmony.

Space-atoms

Sthapati's observations on space-atom are thought kindling and they compel the reader to think further, to analyse and to accept the truths. I would venture to state that Sthapati is the first Vāstu-scientist to expound the exact truth about the form of atom based on Mayan's works and other Silpa s̄astras. The form of atom is not spherical as it is generally believed. Every atom is in cubic form, with all its sides in equal measure (43). Each atom of light and sound is in cubic form. The form assumed by the subtle atom (paramānu) in its normal existence is only cubic (46). Since both the macro-universe and micro-universe originate from space and space-atoms, it is deduced that the form of macrocosm and microcosm is also cubic (114). In fact, the linear plan of the universe is also in the form of square consisting of 64 squares. In its evolutionary process, cubic atom develops into octagonal form and culminates in a circular form. The central shaft of Sivalinga is indicative of the evolutionary or unfolding process of atom - its lower portion being in the form of square, middle portion in octagonal and the upper portion in circular form.

Both the Silpa tradition and the Sivagamic tradition hold that the square is the basic form for any geometrical

design or construction. The Suprabhedāgama and Sarvajñānottara Āgama state that the space inside the heart is only in the form of square.

The Ajitāgama declares that for all fire-pits of varied designs, square is the basic. All the Vāstu mandalas are essentially square.

Microbode

Based on the concept of paramānu, Mayan formulates the concept of microbode, called சிற்றலை in Tamil. This concept of microbode does not figure in any other works of Silpa and Āgama. At this context I want to asseverate that Mayan expounds the concepts of Microbode (Citravai), Natarāja, Somāskanda, etc. out of his own scientific quest and insight, without drawing from or referring to the mythological texts and events. In Aintiram, Mayan embodies the secrets and significance of these concepts in more than 100 verses. Ganapati Sthapati, having drawn inspiration and information from Mayan's original theories and expositions, explains the structural pattern of microbode in this book (42, 56). Verily, microbode is luminous spot and Om light; it is an atomic luminous box in cubic form. Through the rhythmic movement inherent in itself it assumes a rectangular form (60) and its size gets doubled. Within microbode, there is a streak of dancing light, which is the actual manifestation of Nataraja (56) (43). Viewed from the stand point of microbode, creation

is nothing but splitting and materialisation of microbode (62). Dance of Vastu is the dance of the light-filament in the microbode. Bindu is another name for microbode. The term bindu is derived from the verbal root bid, meaning 'to cleave, to split'.

The Sarada Tilaka states: (1.8)

"Bindu, in essence, is the transcendent energy which breaks into three"

Bindu constitutes the thought-element and serves as the material of all the elements of matter and speech and it is the meeting point of spirit and matter. While bindu presents in our mind an image of point or drop, microbode presents an image of cubic. This is the difference.

Chidambaram Temple and Sri Rangam Temple - Temples of space-science

To the extent the concept of microbode is understood, the significant characteristics of the temples of space-science built in Chidambaram and Srirangam could be realised. Detailed exposition of the essential truths and symbolic meanings of these temples constitutes the central and main theme of this book. The explanations and elucidations offered by the author on these temples are at once enlightening and edifying. These are exclusively based on the science of Vastu.

It is worthwhile to recapitulate some of the illuminating views on the temples of space-science as embodied in this book.

Chidambaram is the veritable representation of microbode. Luminous Nataraja (ஒளி நடராஜன்) is the name of the luminous streak of light that is throbbing inside the microbode. Nataraja limits himself within a mathematical formula framed according to the vibrancy of the supreme space.

While space is Siva, spatial structure is Vishnu. While Chidambaram represents space, Srirangam represents earth, which is, in reality, the mirror image of space.

Chidambaram	Srirangam
Matter contained in energy	Energy contained in matter
Abode of Vastu Purusa	Abode of Vāstu Purusa
Subtle space	Gross space
Shines as worlds	Shines as worldly objects
Pervades in all places	Pervades in all substances
Macro	Micro
Mandūka pada	Paramasāyi pada
Dancing pose	Reclining pose
Dancing in space-atom	Reclining in earth-atom
Square form	Circular form
Always iconised in metal Always made of earth $E=mc^2$ (pp. 84, 85)	

This is an interesting comparative scheme, well grounded and well reasoned.

At the further step, Sthapati demystifies the concept of "Reverse Dance" (மாறுகால் தாண்டவம்) which has been so far misinterpreted as Enfolding Dance (ஸம்ஹார தாண்டவம்). He is pleasingly perspicuous when he states that the Reverse Dance form is only the form of Vāstu Purusa as explained in the Mānasāra text. The symbolic

meanings of the Nataraja-form and Vishnu-form holding light and sound in their hands have been vividly explained by the author. The essential truths behind the image of Anantapadmanabha Swami, of Nataraja in the Dvajastamba of Srirangam, of Aradhnaresvara in Thiruvaiyaru and of many other specific forms have been clearly explained by the author. Readers are indebted to Sthapati for having brought to light the hidden truths and concepts.

Primal Image; Derived Images.

It is enlightening to note how Sthapati explains the term 'Silpa'. He states that the term, 'Silpa' primarily indicates subtlety (சூழ்நிலை) and this term exclusively belongs to Nataraja only. Only the image of Nataraja is known as Silpa. All other images and icons, sculptures and structures are derived from the image of Natarāja. Natarāja is the primal and first image from which all other images take their origin. When the term 'Silpa' denotes Nataraja, other terms such as pratima, bimba, etc. denote the derived images born of mūla-rūpa (59).

Vāstu Science and Einstein's equation $E=mc^2$

Explanation of mass-energy relationship announced by Einstein in 1905 in the form $E=mc^2$, where E is the quantity of energy m its mass c is the light constant, occupies an important place in this book. Sthapati's equation of the equation $E = \dot{m}c^2$ is as follows:

Vāstu purusa who is of the nature of materialised or actualised energy is m and c is the consciousness that

presents itself as light. To the extent our consciousness is perfected, we could realise the truth that Vastu itself gets transformed into Vāstu or E is equal to M . That is why the enlightened seers see Brahman everywhere. That is they see Vastu in Vāstu.

In another context, Sthapati states that equation $E=mc^2$ represents the relationship between the light-substance ஒளிக்கரு and the sound-substance ஒலிக்கரு and the light-space and the sound-space (108). Foetus grows into child and this growth is represented by the equation $E=mc^2$.

Mayan and Māyan :

The next important theme of the book is the identity of Mayan and Māyan for which the author has now got more substantial records with him.

Other important matters :

The author of "History of Aesthetics" (W.Tatarkiewicz) writes: "Sounds find an echo in the soul which resounds in harmony with them. It is as with a pair of lyres : when we strike one, the other standing nearby will respond" Our Sthapati speaks of such harmony between two Vina - instruments (32, 64) and maintains the fact that all structural forms, whether they are images, buildings, temples and so forth are musical forms. They are frozen music, so to speak.

In the History of Aesthetics, the author states : "Wherever there is harmony or an apt numerical

relationship, there is music and thus, there is music everywhere in the world. “Essence of music is proportion and number”:

Since all images and structures are formed strictly based on proportion and mathematics, they are bound to be musical.

The science of form and image, the role of image in elevating the soul to the square-point of pure bliss and the importance of image worship have been conspicuously explained by Sthapati. He defines **bhakti** as the harmony between the supreme space and inner space, harmony between the conscious-waves of the Divine and the Devotee (32, 49).

By the term Brahma-sutra, scholars would at once think of the text that goes by the name Brahma-sūtra. But under the context of Vāstu, Brahma-sūtra denotes the central filament or the central light-thread manifesting inside the microbode or paramānu. Brahma-sūtra is the light thread. In the technology of image-making, this Brahma-sutra plays the most dominant role. The importance of Brahma-sutra has been brought out in this book under various contexts.

Similarity

Similarly his explanations for various terms such as கடவுள், கோயில், etc, are scientific rather than literary. He says creation does not denote the emergence of new

substance but it denotes the change of original and basic form (45).

He emphasises that the traditional way of saying three fold Tamil (முத்தமிழ்) should be elevated to the saying of fivefold Tamil (ஐந்தமிழ்). The mellifluous language Tamil essentially includes five aspects - literature, music, dance, sculpture and architecture. (இயல், இசை, நடம் சிற்பம், கட்டடம்) out of which the first three belong to the sound-space and the remaining two belong to the light-space.

Conclusion :

He expresses the exigent need for a common Research Forum to bring all the existing cultural streams under one roof. This is because there are number of parallel streams all over the world mirroring the concepts of Vāstu science either in actual form or in modified form. In his article "The city of willows", Rene Guenon writes:

"The centre of the human state can therefore be conceived of as the terrestrial pole and the centre of the universe as the celestial pole. The first can accordingly be described as the 'place' belonging to the 'true man', the second as the 'place' of 'transcendent man'. Furthermore, the terrestrial pole is as it were a reflection of the celestial pole. This is because the terrestrial pole, as representative of the centre, is the point at which 'Activity of Heaven' manifests itself directly, and these two poles are linked to each other by the world Axis".

Do not we feel a degree of reflection of Vāstu Purusa and Vastu Purusa and Bramhapada of Vāstu Mandala in this passage?

There are so many concepts in Far-eastern tradition and Western tradition that offer a wider scope for comparative study.

There is a theory of protoplasmic consciousness in psychology. It is the focussing of the universe on the self and of the self on the universe. This is what Vastu and Vāstu explain through images and temples. The role of Vāstu Science in the field of cosmo- sociology and cosmo-psychology is very great and rewarding and yet this is not recognised by the present day scholarly world. It is the duty of the Tamilian society to make our Sthapati speak more and more about Vāstu and Space. The two inseperable traditions - Shilpins and Sivāchārya or Ādi Saivas - are still holding important scientific concepts not to be seen in the scriptures. Let us prepare ourselves to be rewarded with those concepts.

— Dr. S.P.Sabharathnam

This is the text of review of the Tamil text on the Temples of space science as offered by Prof. Sabharathnam. This bracketed numbers indicate the page number of Tamil text.

TEMPLES OF SPACE-SCIENCE

Dr. S. Padmanabhan

Dr. S. Padmanabhan (Writer and Journalist) graduated from the University of Travancore is a renowned scholar, who has carved a reputation for himself by his study of Temple-Architecture in South India. He is a Gold medalist in Indian philosophy and as such is fully qualified to give the readers a peep into the history, mythology and artistic grandeur of the various Temples. His articles have appeared in most of the popular prestigious journals all over the world. He has participated and presented research papers on Religion, Culture and Tamil studies in several International Conferences held in India and abroad. His thesis that Thiruvalluvar was born in Kanyakumari District is a challenge to the Tamil Scholars. He has visited U.S.A., U.K., France, Rome, Nepal, Ceylon, Mauritius, Singapore, Malaysia, Hongkong, Thailand, Korea and Japan. Presently Dr. S. Padmanabhan is the General Secretary of the 'Kanyakumari Historical and Cultural Research Centre' whose Hony. President is Dr. V.I. Subramaniam, the former Vice-Chancellor of Tamil University. The sole aim of the centre is to bring to light the hidden history of our country. During the current year, his Research centre has conducted more than 15 seminars giving opportunity to all scholars who hold raw materials. That there reigns a free atmosphere to voice scholarly findings without any restrictions imposed from within or from outside is the uniqueness of this Research Society. Under the aegis of this Research centre, the 'Temples of space science' was released.

Thiru. V. Ganapathi Sthapati, a scholar in Sanskrit and an expert on Vaastu Sastra recently published a Tamil book on "TEMPLES OF SPACE- SCIENCE" in which he explains the rationale behind Vastu and Vaastu

Sastras. The relationship between inner and outer space, time and eternity, the microcosm and the macrocosm, subtle and material energy, sound and material space, Akasam and Agni, the form and the formless are also explained in a lucid style on scientific basis. The age old Tamil tradition of Mayan and his relationship with the ancient Maayan Civilization in modern American Nation are scholarly dealt with. In Tamil Nadu "Temple" itself denotes Chidambaram for Saivites and Srirangam for Vaishnavites. While the Lord is in dancing form at Chidambaram He is in a state of meditative sleep at Srirangam. The significance of these two different postures is explained by the author convincingly. His explanation of the two words "Ambalam" and "Arangam" is very interesting.

This volume puts forth the theory that Temple is not merely a home of God but a form of God as well and Temple building is an embodied energy. It reflects the words of Thirumoolar "Unudambu Aalayam" (Our body is a temple). God created man and man created the forms of God. The images of God were sculptured in different forms and various materials and the house of God was also erected according to the rules and regulations framed by our ancestors. Dr.S.Radhakrishnan aptly remarked that "the concrete God is the highest product of our highest intelligence". A piece of ordinary paper has no value. But if it is a currency note it gets

value. A flag is only a small piece of cloth with some symbols. But for a citizen of a country it is a symbol of his Nation. A true and sincere citizen is prepared to give up his life in defending his National flag. Similarly an idol may be of stone or metal but it is a symbol of God for a devotee. The temple may be a building of bricks and stones but it is not only a home of God but a form of God for a worshipper.

The conception of names and forms of invisible God is a unique contribution of Indian genius to the world of arts and religions. Each form attributed to God is a symbol of philosophical ideas correlated with scientific thought. The concept of Indian Iconography and temple architecture is thus a perfect science connecting art and religion. The iconographic study of Nataraja, the dancing form of God is a fascinating one. "The image of Nataraja is a synthesis of Science, religion and art" says the great interpreter of Oriental Art Dr. Ananda Comoraswamy. According to the modern scientists an atom is nothing but a microscopic particle in a perpetual motion within a circle. If there is such a motion, there must be a mover. If the mover is imminent, he must be in motion too. In the figure of Nataraja both the mover and the moved are depicted in life-like shape. Her science is personified in art combined with religion.

All the spheres, the atoms and the electrons also dance rhythmically and in an orderly manner. Atoms dance in the molecule and molecules dance in all bodies. Stars dance in time and space. In short, the world is always in motion. It is nothing but the movements of His limbs. The dance of Siva represents the rhythm and the movement of the world spirit. According to Romain Rolland, a French humanist, "the dance of Siva is the journey of the spirit across stellar space, even to the depths of the planetary void amid the islands of the cosmos, the nebular spirals, the countless milky ways and through the millions of creations which sweep along space and time". You can witness the dance of Siva in the rising Sun, in the waves of the ocean, in the rotation of the planets, in lightning and thunder and in cosmic pralaya (deluge). The whole cosmic play or activity is the dance of Siva. All the movements within the cosmos are His dance. An American writer Mr. Lincoln Kirstein very aptly describes the cosmic significance of Nataraja in the following words: "His image of his rhythmic play is understood as the source of the Cosmic Motion, Action and Tension. The purpose of his dance is to release the innumerable souls of mankind from the snare of illusion".

Like the images of God, Indian temples are also constructed strictly in accordance with the Agamas and Silpa Sastras. The temple is so built and so adorned that the mere sight of or visit to it gives peace of mind. They

pacify and purify our mind, elevate our thought and sublimate our very life. The main parts of a temple are Garbhagruha (Sanctum Sanctorum) containing the image of God, the Vimana over the Sanctum, Ardhamandapa in front of the Sanctum, Prakaras around the Sanctum and the Goupura, the main gateway of the temple. According to Thirumoolar, temple is only a reflection of the physical form of a man. The parts of a temple are identical with the parts of the human body. The sanctum sanctourm is the most important part of a temple like a heart to a man. A battery which is charged with current produces a stream of power. Similarly by concentrating on the image with appropriate mantras, the image becomes a store-house of spiritual power from which flow a stream of grace to the soul of a devotee. According to the latest scientific theory, the sound, once produced never dies. The hymns rendered by our great saints before the idols remain immortal by divine grace. It is to preserve the sound wave that the Sanctum Sanctorum of our temples are so cleverly built. Thus we have seen that idols are not mere toys but symbols of God. The temples are not mere museums but centres of spiritual power. Indian temple is not merely a home of God but a form of God as well.

Regarding the science of space it is not new to the Tamils. Tholkappiam, the ancient Tamil literary work says, that "the world is made of the five elements in Nature namely earth, fire, water, air and space". (Marabu

Iyal. 89). Thiruvalluvar also holds the same view (Kural. 271). The Sangham work Purananuru, mentions these five elements in Nature. Another Sangham work Madurai Kanchi connects the Panchaboothas with Siva (Lines 454-456). According to the Tamil tradition there are Panchaboothasthalas (five abodes of Lord Siva) corresponding to the five elements. Lord Siva is worshiped as Prithivi or earth at Kanchipuram as Ap or water at Jambukeswaram, as Tejas or fire at Tiruvannamalai, as Vaayu or air at Kalahasthi and as Aakaasa or space at Chidambaram.

The Sanctum Sanctorum of the temple at Chidambaram is called Chit Sabha or Chitrambalam (Hall of divine power) where dances Lord Nataraja. To the right side of the image of Nataraja is a curtain which is removed on specific occasions when pooja is performed. It is known as Chidambara Rahasyam (the secret of Chidambaram). Here Lord Nataraja is worshipped as SPACE. Thiru. Ganapathi Sthapati has approached Chidambaram in a scientific way.

Who was the founder of Indian Iconography and Temple architecture? Who invented the unique artistic wonder of the world, Nataraja? It was Mayan, the pioneer in Indian art and architecture who has invented all these artistic wonders and cultural marvels. It was Mayan, who lived in the lost continent of Kumari who has formulated

the rules and regulations of this science of Iconography and temple architecture. Mayan's "Perunata nool" is nothing but a treatise on the cosmic dance of Siva.

Mayamatha, another work written by Mayan in Sanskrit is an important and comprehensive treatise on art and architecture. It is copiously quoted as authority by subsequent writers on architecture and appears to be the oldest among the extant treatise on the subject. The major portion of the manuscript of the work was traced out from the palace library at Trivandrum along with its Tamil version. It is not clearly known whether the original work of Mayan is Tamil or Sanskrit. It is a matter for further research. The manuscript in Sanskrit was published in a book form by the Government of Travancore in the year 1919 through its department for the publication of Sanskrit manuscripts, Trivandrum. The manuscript in Tamil is not yet published. Mayamadha begins with the Invocation to Lord Siva and ends with the installation and traits of Sivalinga. It further deals with the rules and regulations and detailed guidelines of temple architecture, town planning, construction of forts and palaces etc., examination of land and sand, selection of stones and other materials, making idols and structures, placement of various deities, measurement of images, method of installation, erection of gopuram, pillars and mandapas including the modes of rituals and chanting of Mantras.

Followed by Mayan, the first architect, innumerable authors appeared on the scene. Maanasaara, the book which deals with the art of buildings refers to 32 architectural experts in this field. These architects had gathered their experiences and their works of nature during centuries and made books of grammar for art and architecture. It is astonishing to note that majority of the books on this subject are written in Sanskrit based on South Indian art and architecture. Various Tamil words are found in the Art glossary and all the information referred to in the Sanskrit works regarding rules and regulations, cultural aspects, sculptural traditions etc., have the Tamil spirit behind it. Even though these books are in Sanskrit, the architects are Dravidians particularly Tamils. We find the use of Sanskrit as the language of official documents and as a language of prestige in ancient days. It is very clear that the various Sanskrit works in circulation were in existence in Tamil language by traditions. The Sanskrit book Mayamatha written by Mayan was referred to as Maya nool and Mayaneri in ancient times. The rules and regulations prescribed by Mayan in the field of art and architecture are still green among the artisans of Tamil Nadu.

Mayan, who participated in the first Tamil Sangham, which was held in the last continent of Kumari is said to have lived on Mahendra mountain which is now in the present Kanyakumari District. According to

Valmiki Ramayana Anjeneya jumped over to Lanka from the top of the Mahendra mountain. Kamban calls this Mahendra mountain as Mayendram. In Kerala the names Nagendran, Narendran, Devendran, Ramendran, Balendran, Surendran, Suchindran and Mannendran are very common. Similarly Mayan became Mayendran. The nomenclature of the word Mayendram is a confirmatory piece of evidence that Mayan lived in the Mahendra mountain.

Aindiram, published by the Directorate of Technical Education, Tamil Nadu Government in 1986 throws some light on the life history of Mayan. His father was Thamarai, his mother was Karunkuzhali and his wife was Hema, the Asura Narthagi. Māyāvi and Thunthubi were his sons while Mandothari, the wife of Ravana was his only daughter. In his Ottamthullal "Sabha pravesam", Kunchan Nambiar, a Malayalam poet described Mayan as Aasasri.

Literary works of North and South paid glowing tributes to Mayan, the pioneer in art and architecture. Like Agathiyan, the pioneer in Tamil grammar and literature. Mayan has been referred as a founder of art and architecture in the first epic Ramayana of Valmiki. From the Ramayana of Kamban it is learnt that Mayan constructed the City Amaravathi, for Indra and Alakapuri for Kubera. After the destruction of the capital City of Ravana by Hanuman it was reconstructed by Mayan, the father-in-law of Ravana. In the Mahabharata, Mayan is

said to have erected for Pandavas the Maya-Sabha in Indraprastha. The artistic tradition of Mayan is praised by the author of Silapathikaram. The influence of Mayan tradition in North India is mentioned in Silapathikaram. Manimekalai points out that the Buddha peetha at Kaverippoompattinam, the Sakkaravaalakottam and Kanthir paavai were erected by Mayan. Manimekalai also talks about the crystal hall in Chakravalakottam built by Mayan according to the Silpa Sastras. The palinkarai mandapa (crystal hall) is so arranged that a person standing outside can see the happenings inside but cannot hear what is spoken within. The walls are made of transparent materials like our modern day glass house but sound proof. Even thousands of years ago light and sound technology was known to the architects as derived from the tradition of Mayan.

Ancient literature also speaks of the great advancement in the art of warfare as well as the condition of transport founded by Mayan. Ravana used a weapon designed and made by Mayan bearing his name in the battle with Rama. It was known as Mayan padaikalam. In pavishya purana, Mayan destroyed a Yantra namely Brahmi which was installed on earth to prevent the movements of the inhabitants from one continent to another. In Ramayana there occurs a reference to Pushpak Vimana the flying vehicle decorated with flowers and was operated by Ravana. Yet another worthy work of Mayan was the

Peacock shaped Vimana of air borne vehicle which was a forerunner to the modern helicopter. Mention of it is made in the Jeevaka Chinthamani how the king minutely explained to his beloved the intricacies of the devices. Perhaps Mayan, referred to in various works of different periods, may not be one and the same person as in the case of Agasthiyan who appeared in different periods. We have references to Mayan tradition and also the extraordinary skill he had in building architecture, sculpture, mode of transport and equipments of warfare in ancient literature. Mayan is described as an Asura in Matsyapurana. Maya is attributed as one of the teachers of Architectural Science and one who is well-versed in various branches of Science such as Geology, Ecology, Astronomy, Astrology, Mathematics, Iconography etc., as evidenced in Matsyapurana. Mayan, an architect of Asura by birth, was also considered as an architect of Devas subsequently. Vaastu Sootropanishad of Atharva Veda refers to Mayan as the author of Vaastu tradition. In fact Mayan was aryanised like Agasthiyan.

Mayan, the pioneer in art and architecture, lived in the lost continent of Kumari and the influence of Mayan had spread all over the world. Father Hiras in his proto-Indo Mediterranean culture, had postulated the theory that the original home of man is to be found in the lost continent of Kumari. He has further ventured to suggest that culture has spread to all the corners of the

world only from this lost continent. He has also adduced many anthropological factors and archaeological evidences to support the theory. It is worth to remember here the ancient civilization of Māyans in Mexico.

The famous research book "Hindu America" written by Chaman Lal proves Indo-American contacts for centuries before the birth of not only Colombus but also Jesus Christ. It reveals the forgotten story of the imprints of Indian culture on the aborigins of America especially our immortal links with the Māyan civilizations of Mexico and Inca rulers of South America. Prof. Ramon Mens, curator of the National Museum of Mexico in his book "Mexican Archaeology" says about the Mayan civilization that the style of their construction clearly indicate the remotest antiquity and it is considered of Indian origin. Like the Tamils the Māyans of Mexico built their cities and towns around the temples. The palace of the rulers, the houses of traders and the nobility were built around the temples. The Māyas and other races of ancient America had master builders and great architects, whose works, though in ruin, are still marvels of the present day. The modern Engineers in America are still unable to solve the mystery as to how these palaces and temples were built without any mechanical aid.

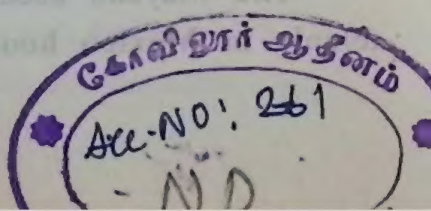
The Māyans used to worship Siva. The biggest temple in Mexico houses an image of Siva and the

Museums throughout South American countries have several images of Siva. The temple with gopuram at Tikal in Mexico bore the imprint of our famous temple at Madurai. Hewitt, the renowned British research scholar, writes that the chief God of all North American Indian tribes is Ingan. It is reminiscent of Lingam the God of Kumari Nadu. When Colombus rediscovered the "New World" America in 1492 and found himself among a strange looking people whose description resembled those of the people of India, he called them "Indians". They are still called Red Indians.

It is highly commendable that Thiru. Ganapathi Sthapati in the midst of his pressing duties as a Designer and Engineer for various new temple projects in India and abroad he found time to write such an interesting book about Vaastu Sastra of the Tamils. His approach to the subject is scientific and the treatment scholarly. Thiru. Ganapati Sthapati can be considered as the "Mayan of the modern age".

Recently Thiru. Ganapati Sthapati visited the land of Mayans in America and made a spot study of their culture. We can expect a detailed book on "Mayans of America" shortly.

Dr. S. Padmanabhan.





Sabhūmim Viswato Vrutvā
Atya tishtad dasāṅgulam

ஞாலத்தைச் சூழ்ந்தும் அதற்குமேல்
பத்து அங்குலம் உயர்ந்தும் நிற்கிறான்

सभूमिं विश्वतो वृत्वा

अत्यतिष्ठदृशाङ्गुलम् - पुरुषशूक्त